SECȚIUNEA 1: Identificarea substanței/amestecului și a societății/întreprinderii

1.1. Identificator de produs

Identificarea preparatului:

Nume comercial: FASSA EPOXY 100 COMP.A

Cod comercial: 1222

UFI: 2HEW-9ARA-R00F-6AVC

1.2. Utilizări relevante identificate ale substanței sau ale amestecului și utilizări contraindicate

Utilizarea recomandată: Amorsă epoxidică pentru sisteme FRP; Numai pentru uz profesional

Utilizări de evitat: Nu este destinat utilizării de către consumator

1.3. Detalii privind furnizorul fișei cu date de securitate

Compania: FASSA Srl

Via Lazzaris, 3 - 31027 Spresiano (TV) - ITALY

Tel. +39 0422 7222

Fax +39 0422 887509

Responsabil: laboratorio.spresiano@fassabortolo.it

1.4. Număr de telefon care poate fi apelat în caz de urgență

+40213183606

SECȚIUNEA 2: Identificarea pericolelor



2.1. Clasificarea substanței sau a amestecului

Regulamentul (CE) nr. 1272/2008 (CLP)

Skin Corr. 1C	Provoacă arsuri grave ale pielii şi lezarea ochilor.
Skin Sens. 1A	Poate provoca o reacţie alergică a pielii.
Repr. 1B	Poate să dăuneze fertilităţii sau fătului în contact cu pielea şi prin inghiţire.
Aquatic Chronic 2	Toxic pentru mediul acvatic cu efecte pe termen lung.

Efecte fizico-chimice dăunătoare sănătăţii omului şi mediului înconjurător:

Nici un alt risc

2.2. Elemente de etichetare

Regulamentul (CE) nr. 1272/2008 (CLP)

Pictograme de pericol și cuvânt de avertizare



Pericol

Fraze de pericol

H314	Provoacă arsuri grave ale pielii şi lezarea ochilor.
H317	Poate provoca o reacţie alergică a pielii.
H360	Poate să dăuneze fertilităţii sau fătului în contact cu pielea şi prin inghiţire.
H411	Toxic pentru mediul acvatic cu efecte pe termen lung.

Fraze de precauţie

P201	Procuraţi instrucţiuni speciale înainte de utilizare.
P260	Nu inspirați fumul/gazul/ceața/vaporii/spray-ul.
P280	Purtaţi mănuşi/echipamente de protecţie şi protejaţi ochii/vederea.
P303+P361+P353	ÎN CAZ DE CONTACT CU PIELEA (sau cu părul): Scoateți imediat toată îmbrăcămintea contaminată. Clătiți pielea cu apă [sau faceți duș].
P305+P351+P338	ÎN CAZ DE CONTACT CU OCHII: Clătiți cu atenție cu apă timp de mai multe minute. Scoateți lentilele de contact, dacă este cazul și dacă acest lucru se poate face cu ușurință. Continuați să clătiți.

P310 Sunați imediat la un CENTRU DE INFORMARE TOXICOLOGICĂ/un medic.

Prevederi speciale:

EUH205 Conţine componenţi epoxidici. Poate provoca o reacţie alergică.

Conţine:

amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran

bis-[4-(2,3-epoxipropoxi)fenil]propan

1,6-hexandiol diglicidil eter

1,3-propandiol, 2-etil-2-(hidroximetil)-, polimer cu (clorometil)oxiran

Dispoziţii speciale conform Anexei XVII (REACH) cu modificările şi completările ulterioare:

Nici una

2.3. Alte pericole

Nu conține PBT, vPvB sau perturbatori endocrini prezenți în concentrații >= 0,1%.

Nici un alt risc

SECȚIUNEA 3: Compoziție/informații privind componenții

3.1. Substanțe

N.A.

3.2. Amestecuri

Identificarea preparatului: FASSA EPOXY 100 COMP.A

Componente periculoase în sensul Regulamentului CLP şi clasificarea corespunzătoare:

Cantitate	Nume	Nr. de Ident.	Clasificare	Număr de înregistrare:
≥30 - <50 %	bis-[4-(2,3-epoxipropoxi)fenil]propan	CAS:1675-54-3 EC:216-823-5 Index:603-073-00-2	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 Limite de concentrație specifice: 5% ≤ C < 100%: Skin Irrit. 2 H315 5% ≤ C < 100%: Eye Irrit. 2 H319	01-2119456619-26-xxxx
≥30 - <50 %	1,6-hexandiol diglicidil eter	CAS:933999-84-9 EC:618-939-5	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1A, H317; Repr. 1B, H360Fd; Aquatic Chronic 3, H412	01-2119463471-41-xxxx
≥10 - <20 %	amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran	EC:701-263-0	Skin Irrit. 2, H315; Skin Sens. 1A, H317; Aquatic Chronic 2, H411	01-2119454392-40-xxxx
≥5 - <10 %	1,3-propandiol, 2-etil-2-(hidroximetil)-, polimer cu (clorometil)oxiran	CAS:30499-70-8 EC:608-489-8	Skin Corr. 1C, H314; Eye Dam. 1, H318; Skin Sens. 1B, H317; Repr. 1B, H360F; Aquatic Chronic 2, H411	
≥0.005 - <0.025 %	acetat de 2-metoxi-1-metiletil	CAS:108-65-6 EC:203-603-9 Index:607-195-00-7	Flam. Liq. 3, H226; STOT SE 3, H336	01-2119475791-29-xxxx

SECȚIUNEA 4: Măsuri de prim ajutor

4.1. Descrierea măsurilor de prim ajutor

În caz de contact cu pielea:

Îndepărtaţi imediat hainele contaminate şi eliminaţi-l în mod sigur.

OBTINETI ASISTENTA MEDICALA IMEDIATA

În caz de contact cu ochii:

În caz de contact cu ochii, clătiţi cu apă pentru un interval de timp corespunzător şi ţineţi deschise pleoapele, după care consultaţi

imediat un oftalmolog.

Protejaţi ochiul lezat.

În caz de ingerare:

Nu provocaţi vomitarea, adresaţi-vă unui medic arătând Fişa de Siguranţă şi eticheta produsului.

În caz de inhalare:

Conduceţi accidentatul la aer liber şi ţineţi-l la cald şi în repaus.

4.2. Cele mai importante simptome și efecte, atât acute, cât și întârziate

Simptomele şi efectele sunt cele preconizate în secIiunea 2 cu privire la pericole.

4.3. Indicații privind orice fel de asistență medicală imediată și tratamentele speciale necesare

În caz de accident sau stare proastă consultaţi imediat un medic (dacă este posibil arătaţi instrucţiunile de folosinţă sau fişa de siguranţă).

SECȚIUNEA 5: Măsuri de combatere a incendiilor

5.1. Mijloace de stingere a incendiilor

Mijloace de stingere corespunzătoare:

CO2, stingătoare cu pulbere, spumă, apă pulverizată.

Mijloace de stingere care nu trebuie să fie utilizate din motive de siguranţă:

Jeturi de apă.

5.2. Pericole speciale cauzate de substanță sau de amestec

Combustia produce fum greu.

Nu inhalați gazele produse prin explozie și/sau prin combustie (monoxid de carbon, dioxid de carbon, oxizi de azot).

5.3. Recomandări destinate pompierilor

Folosiţi dispozitive respiratorii corespunzătoare.

Strângeţi separat apa contaminată folosită pentru stingerea incendiului. Nu o descărcaţi în reţeaua de canalizare.

Dacă este posibil din punct de vedere al siguranţei, îndepărtaţi din zona de pericol imediat recipientele neafectate.

SECȚIUNEA 6: Măsuri împotriva pierderilor accidentale

6.1. Precauții personale, echipament de protecție și proceduri de urgență

Pentru personalul care nu este implicat în situații de urgență:

Îmbrăcaţi dispozitivele de protecţie individuală.

Duceţi persoanele în loc sigur.

Citiţi măsurile de protecţie prezentate la punctele 7 şi 8.

Pentru personalul care intervine în situații de urgență:

Îmbrăcaţi dispozitivele de protecţie individuală.

6.2. Precauții pentru mediul înconjurător

Împiedicaţi penetrarea în sol/subsol. Împiedicaţi vărsarea în apele de suprafaţă sau în reţeaua de canalizare.

În caz de scurgere de gaz sau penetrare în cursuri de apă, sol sau sistemul de canalizare, informaţi autorităţile răspunzătoare.

6.3. Metode și material pentru izolarea incendiilor și pentru curățenie

Material corespunzător pentru colectare: material absorbant inert (de exemplu, nisip, vermiculit)

Dupa ce produsul a fost recuperat, clatiti suprafata si materialele folosite cu apa

Reţineţi apa de spălat contaminată şi eliminaţi-o.

6.4. Trimiteri către alte secțiuni

Vezi şi paragrafele 8 şi 13

SECȚIUNEA 7: Manipulare și depozitare

7.1. Precauții pentru manipularea în condiții de securitate

Evitați contactul cu pielea și ochii, precum și inhalarea vaporilor și a ceții.

Nu folosiţi recipiente goale înainte de a fi curăţate.

Înaintea operaţiilor de transfer, asiguraţi-vă că în recipiente nu sunt materiale rezidue incompatibile.

Sfaturi privind igiena generală la locul de muncă:

Hainele contaminate trebuie înlocuite înainte de accesul la zona de prânz.

Nu mincati sau beti in timpul lucrului

Se face trimitere şi la paragraful 8 pentru dispozitivele de protecţie recomandate.

7.2. Condiții de depozitare în condiții de securitate, inclusiv eventuale incompatibilități

Păstrați recipientele bine închise într-un spațiu răcoros și bine ventilat, la distanță de surse de căldură.

Ţineţi departe de alimente, băuturi şi hrană pentru animale.

Materiale incompatibile

Vezi pct. 10.5

Instructiuni privind spatiile de depozitare:

Spatii ventilate adecvat

7.3. Utilizare (utilizări) finală (finale) specifică (specifice)

Recomandări

Vezi pct. 1.2

Soluţii specifice pentru sectorul industrial

Nici o utilizare particulară

SECȚIUNEA 8: Controale ale expunerii/protecția personală

8.1. Parametri de control

Limitele de expunere profesională

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6	Tip OEL	UE		Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	MAK	Austria	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	MAK	Germania	Termen lung 270 mg/m3 - 50 ppm; Termen scurt 270 mg/m3 - 50 ppm
	Tip OEL	VLEP	Belgia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.
	Tip OEL	VLEP	Franţa	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	Italia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	România	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm
	Tip OEL	TLV	Bulgaria	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	TLV	Cehia	Termen lung 270 mg/m3 - 49.14 ppm; Termen scurt 550 mg/m3 - 10.01 ppm Note: Skin
	Tip OEL	VLA	Spania	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	ÁK	Ungaria	Termen lung 275 mg/m3; Termen scurt 550 mg/m3
	Tip OEL	MAC	Olanda	Termen lung 550 mg/m3 - 100 ppm
	Tip OEL	VLE	Portugalia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	SUVA	Elveţia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 275 mg/m3 - 50 ppm
	Tip OEL	WEL	U.K.	Termen lung 274 mg/m3 - 50 ppm; Termen scurt 548 mg/m3 - 100 ppm Note: Skin
	Tip OEL	GVI	Croaţia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	AGW	Germania	Termen lung 270 mg/m3 - 50 ppm; Termen scurt 270 mg/m3 - 50 ppm
	Tip OEL	NDS	Polonia	Termen lung 260 mg/m3; Termen scurt 520 mg/m3 Note: Skin
	Tip OEL	MV	Slovenia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	IPRV	Lituania	Termen lung 250 mg/m3 - 50 ppm; Termen scurt 400 mg/m3 - 75 ppm Note: Skin
	Tip OEL	RV	Letonia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin

Valori limită de expunere PNEC

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3	Cale de expunere: Apă dulce; PNEC Limită: 0.006 mg/l
	Cale de expunere: Apă sărată; PNEC Limită: 0.001 mg/l
	Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.341 mg/kg
	Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.034 mg/kg
	Cale de expunere: Sol (agricol); PNEC Limită: 0.065 mg/kg

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 10 mg/l

1,6-hexandiol diglicidil eter

CAS: 933999-84-9 Cale de expunere: Apă dulce; PNEC Limită: 0.011 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 0.001 mg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 1 mg/l

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.283 mg/kg

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.028 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 0.223 mg/kg

amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran

Cale de expunere: Apă dulce; PNEC Limită: 0.003 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 0.0003 mg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 10 mg/l

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.0294 mg/kg

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.294 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 0.237 mg/kg

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6 Cale de expunere: Apă dulce; PNEC Limită: 0.635 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 0.064 mg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 100 mg/l

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 3.29 mg/kg

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.329 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 0.29 mg/kg

Nivel Derivat Fără Efect (DNEL)

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3 Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 0.75 mg/kg; Consumator: 0.089 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 4.93 mg/m3; Consumator: 0.87 mg/m3

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 0.5 mg/kg

1,6-hexandiol diglicidil eter

CAS: 933999-84-9 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 10.57 mg/m3; Consumator: 5.29 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 6 mg/kg; Consumator: 3 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 1.5 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător: 10.57 mg/m3; Consumator: 5.29 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 1.7 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 1.5 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător: 0.44 mg/m3; Consumator: 0.27 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător: 0.022 mg/kg; Consumator: 0.013 mg/kg

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător: 0.022 mg/kg; Consumator: 0.013 mg/kg

amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice

Lucrător profesionist: 104.15 mg/kg; Consumator: 62.5 mg/kg

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător profesionist: 0.0083 mg/cm2

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 29.39 mg/m3; Consumator: 8.7 mg/m3

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 6.25 mg/kg

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6 Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 796 mg/kg; Consumator: 320 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 36 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 500 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 275 mg/m3; Consumator: 33 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător: 550 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Consumator: 33 mg/m3

8.2. Controale ale expunerii

Asigurați o ventilație adecvată. Atunci când este rezonabil posibil, aceasta se poate obține prin utilizarea de ventilație de schimb și a unei aspirații generale bune.

Protectia ochilor

Ochelari cu protecție laterală (EN 16321).

Protectia pielii

Utilizați îmbrăcăminte corespunzătoare pentru protecția completă a pielii, în funcție de activitate și expunere (EN 14605/EN 13982), de exemplu salopetă de lucru, șorț, încălțăminte de siguranță, îmbrăcăminte corespunzătoare.

Protectia mainilor

Nu există niciun material sau combinație de materiale pentru mănuși care să poată garanta o rezistență nelimitată la orice produs chimic sau combinație de produse.

Pentru manipulare prelungită sau repetată, utilizați mănuși rezistente la produse chimice.

Tipul de mănuși adecvate (EN 374/EN 16523); FKM (fluor cauciuc): grosime >= 0.4 mm; timp de penetrare >= 480 min. NBR (cauciuc nitrilic): grosime >= 0.4 mm; timp de penetrare >= 480 min

Alegerea mănușilor potrivite nu depinde numai de material, ci și de alte caracteristici de calitate care variază de la un producător la altul, precum și de metodele și timpii de utilizare a amestecului.

Protectie respiratorie

Dacă lucrătorii sunt expuși la concentrații mai mari decât limitele de expunere, trebuie să poarte aparate respiratorii certificate.

Filtru amestec (EN 14387): mască cu filtru A-P2.

Controale de expunere ambientală:

Vezi pct. 6.2

Măsurile de igienă și tehnice

Vezi alineatul 7.

SECȚIUNEA 9: Proprietățile fizice și chimice

9.1. Informații privind proprietățile fizice și chimice de bază

Stare fizică: Lichid

Aspect: Lichid

Culoare: incolor

Miros: caracteristic

Punctul de topire/punctul de înghețare: N.D.

Punctul de fierbere sau punctul inițial de fierbere și intervalul de fierbere: N.D.

Inflamabilitatea: N.A.

Limita inferioară și superioară de explozie: N.D.

Punctul de aprindere: N.A.

Temperatura de autoaprindere: N.D.

Temperatura de descompunere: N.A.

pH: N.A.

Viscozitatea cinematică: N.A.

Solubilitatea in apa: N.A.

Solubilitate în ulei: Solubil

Coeficientul de partiție n-octanol/apă (valoarea log): N.A.

Presiunea vaporilor: N.D.

Densitatea și/sau densitatea relativă: 1.12 kg/l (Metoda internă)

Densitatea relativă a vaporilor: N.D. N.A.

Caracteristicile particulei:

Dimensiunea particulei: N.A.

9.2. Alte informații

Proprietati explozive: N.A. (Evaluare internă)

Proprietati oxidante: N.A. (Evaluare internă)

SECȚIUNEA 10: Stabilitate și reactivitate

10.1. Reactivitate

Stabilă în condiţii normale

10.2. Stabilitate chimică

Stabilă în condiţii normale

10.3. Posibilitatea de reacții periculoase

Se poate aprinde in contact cu agenti puternic oxidanti

Din cauza efectului căldurii sau în caz de incendiu, se pot elibera oxizi de carbon și vapori care pot fi dăunători pentru sănătate.

10.4. Condiții de evitat

Evitați apropierea de surse de căldură.

10.5. Materiale incompatibile

Agenți de oxidare puternici, agenți de reducere puternici, amine alifatice și aromatice.

Vezi pct. 10.3

10.6. Produși de descompunere periculoși

În cazul depozitării și manipulării adecvate, nu există produse de descompunere periculoase.

Vezi pct. 5.2

SECȚIUNEA 11: Informații toxicologice

11.1. Informații privind clasele de pericol definite în Regulamentul (CE) nr. 1272/2008

Rasina epoxi lichida continuta de acest material produse doar iritari minore ale pielii. Oricum, toate rasinile epoxi sunt capabile sa produca sensibilizarea pielii. Susceptibilitatea la sensibilizare si iritare a pielii difera de la persoana la persoana

La indivizii sensibilizati dermatita alergica poatesa nu apara decat la cateva zile sau saptamani dupa contactul frecvent sau prelungit. De aceea, chiar daca potentialul de iritare al pielii este scazut, contactul cu pielea trebuie evitat

Odata sensibilitatea instalata, expunerea pielii la cantitati foarte mici de material poate cauza eritem sau edem

Informații toxicologice ale produsului:

a) toxicitate acută	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
b) corodarea/iritarea pielii	Produsul este clasificat: Skin Corr. 1C(H314)
c) lezarea gravă/iritarea ochilor	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
d) sensibilizarea căilor respiratorii sau a pielii	Produsul este clasificat: Skin Sens. 1A(H317)
e) mutagenitatea celulelor germinative	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
f) cancerogenitatea	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
g) toxicitatea pentru reproducere	Produsul este clasificat: Repr. 1B(H360)
h) STOT (toxicitate asupra organelor țintă specifice) - expunere unică	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
i) STOT (toxicitate asupra organelor țintă specifice) - expunere repetată	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
j) pericol prin aspirare	Neclasificat

Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.

Informații toxicologice referitoare la substanțele principale găsite în acest produs:

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3 a) toxicitate acută LD50 Oral Șobolan > 2000 mg/kg

LD50 Piele Șobolan > 2000 mg/kg

1,6-hexandiol diglicidil eter

CAS: 933999-84-9 a) toxicitate acută LD50 Oral Șobolan 2189 mg/kg

LD50 Piele Șobolan > 2000 mg/kg

amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran

a) toxicitate acută LD50 Piele Șobolan > 2000 mg/kg

LD50 Oral Șobolan > 5000 mg/kg

1,3-propandiol, 2-etil-2-(hidroximetil)-, polimer cu (clorometil)oxiran

CAS: 30499-70-8 a) toxicitate acută LD50 Oral Șobolan > 2000 mg/kg

LD50 Piele Șobolan > 3170 mg/kg

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6 a) toxicitate acută LD50 Oral Șobolan > 5000 mg/kg

LD50 Piele Iepure > 5000 mg/kg

LC0 Vapori de inhalare Șobolan > 4345 ppm 6h

11.2. Informații privind alte pericole

Proprietăți de perturbator endocrin:

Nu conține perturbatori endocrini prezenți în concentrații >= 0,1%

SECȚIUNEA 12: Informații ecologice

A se adopta bune practici de productie astfel incat produsul sa nu fie eliberat in mediu

12.1. Toxicitate

Informaţii Ecotoxicologice:

Toxic pentru mediul acvatic cu efecte pe termen lung.

Lista proprietatilor Eco-toxicologice ale produsului

Produsul este clasificat: Aquatic Chronic 2(H411)

Lista componentelor cu proprietăţi ecotoxicologice

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3 a) Toxicitate acvatică acută: EC50 Daphnia 1.8 mg/l 48h

a) Toxicitate acvatică acută: LC50 Pește 2 mg/l 96h

a) Toxicitate acvatică acută: EC50 Alge 11 mg/l 72h

b) Toxicitatea acvatică cronică: NOEC Daphnia 0.3 mg/l 21d

1,6-hexandiol diglicidil eter

CAS: 933999-84-9 a) Toxicitate acvatică acută: LC50 Pește 30 mg/l 96h

a) Toxicitate acvatică acută: EC50 Daphnia 47 mg/l 48h

amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran

a) Toxicitate acvatică acută: LC50 Pește 2.54 mg/l 96h

a) Toxicitate acvatică acută: EC50 Alge 1.8 mg/l 72h

a) Toxicitate acvatică acută: EC50 Daphnia 2.55 mg/l 48h

b) Toxicitatea acvatică cronică: NOEC Daphnia 0.3 mg/l - 21d

1,3-propandiol, 2-etil-2-(hidroximetil)-, polimer cu (clorometil)oxiran

CAS: 30499-70-8 a) Toxicitate acvatică acută: LC50 Pește 75 mg/l 96h

a) Toxicitate acvatică acută: EC50 Daphnia 3.7 mg/l 48h

a) Toxicitate acvatică acută: EC50 Alge 9 mg/l 72h

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6 a) Toxicitate acvatică acută: LC50 Pește 134 mg/l 96h

a) Toxicitate acvatică acută: EC50 Daphnia 408 mg/l 48h

a) Toxicitate acvatică acută: EC50 Alge > 1000 mg/l 96h

b) Toxicitatea acvatică cronică: NOEC Pește 47.5 mg/l - 14 d

12.2. Persistență și degradabilitate

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3 Degradabil în mod lent

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6 Degradabil în mod rapid

12.3. Potențial de bioacumulare

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3 Nu este supus bioacumulării

12.4. Mobilitate în sol

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3 Test: Log Koc; Valoare: 2.650

12.5. Rezultatele evaluărilor PBT și vPvB

În baza datelor disponibile, produsul nu conţine substanţe PBT/vPvB în procentaj ≥ de 0.1%.

12.6. Proprietăți de perturbator endocrin

Nu conține perturbatori endocrini prezenți în concentrații >= 0,1%

12.7. Alte efecte adverse

N.A.

SECȚIUNEA 13: Considerații privind eliminarea

13.1. Metode de tratare a deșeurilor

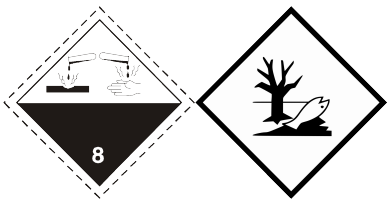
A se recupera, daca este posibil. A se trimite catre punctele de depozitare sau de incinerare, in conditii controlate. A se respecta regulamentele locale in vigoare

Nu permiteți pătrunderea produsului în sistemul de canalizare sau în cursurile de apă.

Recipientele contaminate cu produs, în conformitate cu dispozițiile legale locale sau naționale.

Odată ce produsul a expirat, acesta trebuie eliminat în conformitate cu reglementările în vigoare.

SECȚIUNEA 14: Informații referitoare la transport



14.1. Numărul ONU sau numărul de identificare

1760

14.2. Denumirea corectă ONU pentru expediție

ADR-Nume transport îmbarcare: LICHID COROZIV N.A.S (1,3-propandiol, 2-etil-2-(hidroximetil)-, polimer cu (clorometil)oxiran - amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran)

IATA-Nume transport îmbarcare: CORROSIVE LIQUID, N.O.S. (1,3-propandiol, 2-etil-2-(hidroximetil)-, polimer cu (clorometil)oxiran - amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran)

IMDG-Nume transport îmbarcare: CORROSIVE LIQUID, N.O.S. (1,3-propandiol, 2-etil-2-(hidroximetil)-, polimer cu (clorometil)oxiran - amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran)

14.3. Clasa (clasele) de pericol pentru transport

ADR-clasa: 8

IATA-Clasa: 8

IMDG-Clasa: 8

14.4. Grupul de ambalare

ADR-Grup Ambalare: III

IATA-Grup Ambalare: III

IMDG-Grup Ambalare: III

14.5. Pericole pentru mediul înconjurător

Poluant marin: Da
Poluant ambiental: Da
IMDG-EMS: F-A, S-B

14.6. Precauții speciale pentru utilizatori

Drumuri şi Căi Ferate (ADR-RID):
ADR-Etichetă: 8
ADR - Număr de identificare a pericolului: 80
ADR-Dispoziţii Speciale: 274
ADR-Cod de restricţie în tunel:

Aer (IATA):
IATA-Aeronavă de pasagerit: 852
IATA-Aeronavă de marfă: 856
IATA-Etichetă: 8
IATA-Riscul secundar: -
IATA-Erg: 8L
IATA-Dispoziţii Speciale: A3 A803

Mare (IMDG):
IMDG-Depozitare și manipulare: Category A SW2
IMDG-Segregare: -
IMDG-Riscul secundar: -
IMDG-Dispoziţii Speciale: 223 274

14.7. Transportul maritim în vrac în conformitate cu instrumentele OMI

N.A.

SECȚIUNEA 15: Informații de reglementare

15.1. Regulamente/legislație în domeniul securității, al sănătății și al mediului specifice (specifică) pentru substanța sau amestecul în cauză

Directiva 98/24/CE (Riscuri în legătură cu agenţii chimici la locul de muncă)
Directiva 2000/39/CE (Valori limită a expunerii profesionale)
Directiva 2010/75/UE
Regulamentul (CE) nr. 1907/2006 (REACH)
Regulamentul (CE) nr. 1272/2008 (CLP)
Regulamentul (CE) nr. 790/2009 (ATP 1 CLP) și (EU) nr. 758/2013
Regulamentul (EU) nr. 2020/878
Regulamentul (EU) nr. 286/2011 (ATP 2 CLP)
Regulamentul (EU) nr. 618/2012 (ATP 3 CLP)
Regulamentul (EU) nr. 487/2013 (ATP 4 CLP)
Regulamentul (EU) nr. 944/2013 (ATP 5 CLP)
Regulamentul (EU) nr. 605/2014 (ATP 6 CLP)
Regulamentul (EU) nr. 2015/1221 (ATP 7 CLP)
Regulamentul (EU) nr. 2016/918 (ATP 8 CLP)
Regulamentul (EU) nr. 2016/1179 (ATP 9 CLP)
Regulamentul (EU) nr. 2017/776 (ATP 10 CLP)
Regulamentul (EU) nr. 2018/669 (ATP 11 CLP)
Regulamentul (EU) nr. 2018/1480 (ATP 13 CLP)
Regulamentul (EU) nr. 2019/521 (ATP 12 CLP)
Regulamentul (EU) nr. 2020/217 (ATP 14 CLP)
Regulamentul (EU) nr. 2020/1182 (ATP 15 CLP)
Regulamentul (EU) nr. 2021/643 (ATP 16 CLP)
Regulamentul (EU) nr. 2021/849 (ATP 17 CLP)
Regulamentul (EU) nr. 2022/692 (ATP 18 CLP)
Regulamentul (UE) nr. 2023/707
Regulamentul (EU) nr. 2023/1434 (ATP 19 CLP)
Regulamentul (EU) nr. 2023/1435 (ATP 20 CLP)
Regulamentul (EU) nr. 2024/197 (ATP 21 CLP)
Regulamentul (EU) nr. 2024/2564 (ATP 22 CLP)
Regulamentul (EU) nr. 2024/2865
Regulamentul (EU) nr. 2025/1222 (ATP 23 CLP)

Restricţii referitoare la produsele sau substanţele conţinute de acestea conform Anexei XVII Regulamentul (CE) 1907/2006 (REACH) cu modificările ulterioare:

Restricții referitoare la produs: 3
Restricții referitoare la substanțele conținute: 40, 75

Dispoziții în legătură cu directiva EU 2012/18 (Seveso III):

Categoria Seveso III conform Anexei 1, partea 1	Limită nivel inferior (tone)	Limită nivel superior (tone)
Produsul face parte din categoria: E2	200	500

Regulamentul (UE) nr. 649/2012 (Regulamentul PIC)

Nu există substanțe menționate

Clasa Germană a Periculozităţii Apei

Clasa 3: foarte periculos.

Substanţe SVHC:

În baza datelor disponibile, produsul nu conţine substanţe SVHC în procentaj ≥ de 0.1%.

15.2. Evaluarea securității chimice

Nu a fost efectuată nici o Evaluare de Securitate Chimică pentru amestecul. Consultați scenariile de expunere ale substanțelor anexate acestei fișe de securitate. La consultarea scenariilor, luați în considerare eventualele limitări de utilizare indicate în secțiunea 1.2.

SECȚIUNEA 16: Alte informații

Cod	Descriere
H226	Lichid şi vapori inflamabili.
H314	Provoacă arsuri grave ale pielii şi lezarea ochilor.
H315	Provoacă iritarea pielii.
H317	Poate provoca o reacţie alergică a pielii.
H318	Provoacă leziuni oculare grave.
H319	Provoacă o iritare gravă a ochilor.
H336	Poate provoca somnolenţă sau ameţeală.
H360	Poate să dăuneze fertilităţii sau fătului în contact cu pielea şi prin inghiţire.
H360F	Poate dăuna fertilităţii.
H360Fd	Poate dăuna fertilităţii. Susceptibil de a dăuna fătului.
H411	Toxic pentru mediul acvatic cu efecte pe termen lung.
H412	Nociv pentru mediul acvatic cu efecte pe termen lung.

Cod	Clasa de pericol şi categoria de pericol	Descriere
2.6/3	Flam. Liq. 3	Lichid inflamabil, Categoria 3
3.2/1C	Skin Corr. 1C	Corodarea pielii, Categoria 1C
3.2/2	Skin Irrit. 2	Iritarea pielii, Categoria 2
3.3/1	Eye Dam. 1	Lezarea gravă a ochilor, Categoria 1
3.3/2	Eye Irrit. 2	Iritarea ochilor, Categoria 2
3.4.2/1	Skin Sens. 1	Sensibilizarea pielii, Categoria 1
3.4.2/1A	Skin Sens. 1A	Sensibilizarea pielii, Categoria 1A
3.4.2/1B	Skin Sens. 1B	Sensibilizarea pielii, Categoria 1B
3.7/1B	Repr. 1B	Toxicitate pentru reproducere, Categoria 1B
3.8/3	STOT SE 3	Toxicitate asupra unui organ ţintă specific – o singură expunere, Categoria 3
4.1/C2	Aquatic Chronic 2	Pericol cronic (pe termen lung) pentru mediul acvatic, Categoria 2
4.1/C3	Aquatic Chronic 3	Pericol cronic (pe termen lung) pentru mediul acvatic, Categoria 3

Clasificarea și procedura utilizate pentru realizarea clasificării pentru amestecuri în conformitate cu Regulamentul (CE) nr. 1272/2008 [CLP]:

Clasificare conform Regulamentului (CE) nr. 1272/2008	Procedura de clasificare
Skin Corr. 1C, H314	Metoda de calcul
Skin Sens. 1A, H317	Metoda de calcul
Repr. 1B, H360	Metoda de calcul
Aquatic Chronic 2, H411	Metoda de calcul

Acest document a fost întocmit de un tehnician competent în domeniul SDS şi care este pregătit în mod corespunzător.

Principalele surse bibliografice:

ECDIN - Rețeaua de date și informații de mediu privind produsele chimice - Centrul comun de cercetare, Comisia Comunităților

Europene

SAX PROPRIETĂȚI PERICULOASE ALE MATERIALELOR INDUSTRIALE - Ediția a opta - Van Nostrand Reinold

Fișe tehnice de securitate ale furnizorilor de materii prime.

Aceste informatii se bazeaza pe cunostintele detinute la data mentionata mai sus. Se refera numai la produsul mentionat si nu constitue o garantie a calitatii pentru cazurile particulare

Este de datoria utilizatorului sa se asigure ca aceste informatii sunt adecvate si corespund domeniului specific de utilizare

Aceasta FTS anuleaza si inlocuieste pe cele emise anterior.

Legenda cu abrevierile şi acronimele folosite în fişa cu date de securitate

ACGIH: Conferința Americană a Igieniștilor Industriali Guvernamentali

ADR: Acordul European referitor la Încărcătura Internaţională de Bunuri Periculoase pe Drumuri

ATE: Toxicitate Acută Estimată

ATEmix: Estimarea toxicităţii acute (Amestecuri)

BEI: Index de Expunere Biologică

CAS: Chemical Abstracts Service (departament al Societăţii Americane de Chimie)

CAV: Centrul de Otrăvuri

CE: Comunitatea Europeană

CLP: Clasificare, Etichetare, Ambalare

CMR: Cancerigene, Mutagene și Toxice pentru reproducere

COV: Compus Organic Volatil

CSA: Evaluarea Securității Chimice

CSR: Raportul Securității Chimice

DNEL: Nivel Derivat Fără Efect

EC50: Jumătate din Concentrația Efectivă Maximă

ECHA: Agenția Europeană pentru Produse Chimice

EINECS: Inventarul European al Substanţelor Chimice Existente pe piaţă

ES: Scenariul de Expunere

GefStoffVO: Ordonanţă în legătură cu Substanţele Periculoase, Germania

GHS: Sistemul Mondial Armonizat de Clasificare şi Etichetare a Produselor Chimice

IARC: Agenția Internațională pentru Cercetare în Domeniul Cancerului

IATA: Asociaţia Internaţională de Transport Aerian

IC50: jumătate din concentrația inhibitorie maximă

IMDG: Coduri Maritime Internaţionale pentru Bunurile Periculoase

LC50: Concentraţia letală pentru un procent de 50% din populaţia test

LD50: Doza letală pentru un procent de 50% din populaţia test

LDLo: Doză Letală Scăzută

N.A.: Nu se aplică

N/A: Nu se aplică

N/D: Nedefinit/Nu este disponibil

N.D.: Nu este disponibil

NIOSH: Institutul Național pentru Securitate și Sănătate în Muncă

NOAEL: Nu există un Nivel al Efectelor Adverse Observat

OSHA: Administrația Securității și Sănătății în Muncă.

PBT: Persistente, Bioacumulative și Toxice

PGK: Instrucțiuni de ambalare

PNEC: Concentraţia Fără Efect Prevăzută

PSG: Pasageri

RID: Regulamentul Referitor la Transportul Internaţional de Bunuri Periculoase pe Calea Ferată

STEL: Limita de Expunere pe Termen Scurt

STOT: Toxicitatea pentru Organul Ţintă Specific

TLV: Valoarea Limită a Pragului

TLV-TWA: Valoarea Limită a Pragului pentru Durata Ponderată Medie 8 ore pe zi (Standard ACGIH)

vPvB: Foarte Persistent, Foarte Bioacumulativ.

WGK: Clasa Germană a Periculozităţii Apei

Paragrafe modificate de la ultima revizuire:

- SECȚIUNEA 1: Identificarea substanței/amestecului și a societății/întreprinderii
- SECȚIUNEA 2: Identificarea pericolelor
- SECȚIUNEA 3: Compoziție/informații privind componenții
- SECȚIUNEA 8: Controale ale expunerii/protecția personală
- SECȚIUNEA 9: Proprietățile fizice și chimice
- SECȚIUNEA 11: Informații toxicologice
- SECȚIUNEA 12: Informații ecologice
- SECȚIUNEA 15: Informații de reglementare

- SECȚIUNEA 16: Alte informații

bis-[4-(2,3-epoxipropoxi)phenyl]propane

Substance identification
Chemical Name: bis-[4-(2,3-epoxipropoxi)phenyl]propane
CAS number: 1675-54-3
Date - Version: 29/12/2021 - 1.3

INDUSTRIAL USE - PROFESSIONAL USES: PUBLIC SECTOR (ADMINISTRATION, EDUCATION, ENTERTAINMENT, SERVICES, CRAFTS) (SU22).

1. TITLE SECTION

Exposure scenario name: Industrial use.
Structured short title: Professional uses: public sector (administration, education, entertainment, service, crafts) (SU22).
Substance: 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane
EC number: 216-823-5
Registration number: 01-2119456619-26

ENVIRONMENT

SC 1: Use of non-reactive processing aid at industrial site (no inclusion in article) ERC4

WORKER

SC 2: Use as laboratory reagents PROC15
SC 3: Treatment of articles by dipping and pouring PROC13
SC 4: Tableting, compression, extrusion, pelletising, granulation PROC14
SC 5: General greasing/lubrication in high energy conditions PROC18
SC 6 Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8a

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. ENVIRONMENTAL EXPOSURE CONTROL: Use of non-reactive processing aid at industrial site (no inclusion in article) (ERC4)

Product features (article)
Physical form of the product: Liquid

Amount used (or contained in articles), frequency and duration of use/exposure
Daily amount per site: 0,6 ton/day
Annual amount per site: 20 ton/year

Conditions and measures related to sewage treatment plant
STP Type: Municipal wastewater treatment plant.
Learn more about STP: biological elimination.
STP sludge treatment: It may be landfilled when allowed by local regulations.
STP effluent: 2,000 m³/day

Other conditions affecting environmental exposure
Water flow on the receiving surface: 18,000 m³/day
Outdoor / Indoor Indoor use.

2.2. WORKERS EXPOSURE CONTROL: Use as laboratory reagents (PROC15)

Product features (article)
Covers the percentage of substance in the product up to 100%.
Physical form of the product: Liquid.
Temperature: < 40°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: < 40°C

2.3. WORKERS EXPOSURE CONTROL: Treatment of articles by dipping and pouring (PROC13)

Product features (article)
Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa
Temperature: < 70°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 1 to 3 air changes per hour).
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 0%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.
Wear suitable respirator.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: < 40°C

2.4. WORKERS EXPOSURE CONTROL: Tableting, compression, extrusion, pelletising, granulation (PROC14)

Product features (article)
Covers the percentage of substance in the product up to 100%.
Physical form of the product: Liquid.
Temperature: < 40°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: < 40°C

2.5. WORKERS EXPOSURE CONTROL: General greasing/lubrication in high energy conditions (PROC18)

Product features (article)
Covers concentrations up to 20%.
Physical form of the product: Liquid.
Temperature: ≤ 800°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.
Wear suitable respirator.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure
Outdoor / Indoor Outside.
Industrial or professional environments: Professional use.
Temperature: ≤ 800°C

2.6. WORKERS EXPOSURE CONTROL: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities (PROC8a)

Product features (article)
Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.

Other conditions affecting worker exposure
Outdoor / Indoor Outside.
Industrial or professional environments: Professional use.
Temperature: A process temperature of up to < 40°C is assumed.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Environmental release and exposure: Use of non-reactive processing aid at industrial site (no inclusion in article) (ERC4)

Route release	Release rate	Method for estimating for release
water	1.2E-10kg/day	FEICA SPERC 5.1 a.v1
air	3E-4kg/day	FEICA SPERC 5.1 a.v1
Soil	0%	FEICA SPERC 5.1 a.v1

Protection target	Estimated Exposure (EUSES v2.1)	RCR
Fresh water	3.76E-4mg/l	0.063
Fresh water sediments	0.018mg/l	0.053
Sea water	2.95E-5mg/kg dry weight	0.049
Marine sediment	1.42E-3mg/kg dry weight	0.042
Sewage treatment plant	5.68E-11mg/l	< 0.01
Farmland	2.88E-6mg/kg dry weight	< 0.01
Prey for predators (freshwater)	mg/kg wet weight (EUSES v2.1)	< 0.01
Prey for predators (marine water)	9.13E-4mg/kg wet weight	< 0.01
Main predator prey (marine water)	9.13E-4mg/kg wet weight	< 0.01
Prey for Predators (Terrestrial)	1.68E-4mg/kg wet weight	< 0.01
Man through the environment - inhalation	7.65E-9mg/m³	< 0.01
Man through the environment - oral	3E-5mg/kgbw/day	< 0.01
Population exposed through the environment	-	< 0.01

3.2. Worker exposure: Use as laboratory reagents (PROC15)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.993mg/m³	0.201
inhalation	local	Long-term	0.993mg/m³	-
inhalation	local	Short term	0.993mg/m³	-
dermal	systemic	Long-term	0.172mg/kg bw/day	0.045
dermal	local	Short term	9.92E-3mg/cm²	-
combined routes	-	-	-	0.247

3.3. Worker exposure: Treatment of articles by dipping and pouring (PROC13)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.085mg/m³	0.017
inhalation	local	Long-term	0.085mg/m³	-
inhalation	local	Short term	0.085mg/m³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.06mg/cm²	-
combined routes	-	-	-	0.566

1 - bis-[4-(2,3-epoxipropoxi)phenyl]propane - 1

3.4. Worker exposure: Tableting, compression, extrusion, pelletising, granulation (PROC14)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.993mg/m³	0.201
inhalation	local	Long-term	0.993mg/m³	-
inhalation	local	Short term	0.993mg/m³	-
dermal	systemic	Long-term	0.172mg/kg bw/day	0.229
dermal	local	Short term	0.0025mg/cm²	-
combined routes	-	-	-	0.43

3.5. Worker exposure: General greasing/lubrication in high energy conditions (PROC18)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.596mg/m³	0.121
inhalation	local	Long-term	0.596mg/m³	-
inhalation	local	Short term	0.596mg/m³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm²	-
combined routes	-	-	-	0.669

3.6. Worker exposure: Transfer of a substance or a preparation (filling/emptying) at non-dedicated facilities (PROC8a)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.596mg/m³	0.121
inhalation	local	Long-term	0.596mg/m³	-
inhalation	local	Short term	0.596mg/m³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm²	-
combined routes	-	-	-	0.669

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

PROFESSIONAL USE - PROFESSIONAL USES: PUBLIC SECTOR (ADMINISTRATION, EDUCATION, ENTERTAINMENT, SERVICES, CRAFTS) (SU22).

1. TITLE SECTION

Exposure scenario name: Professional.
Structured short title: Professional uses: public sector (administration, education, entertainment, service, crafts) (SU22).
Substance: 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane
EC number: 216-823-5
Registration number: 01-2119456619-26

ENVIRONMENT

SC 1: Use at an industrial site leading to inclusion in article ERC5

WORKER

SC 2: Industrial spraying PROC7
SC 3 Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8a
SC 4: Transfer of substance or mixture (charging/discharging) from/to vessels/large containers at dedicated facilities. PROC8b
SC 5: Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC9
SC 6: Application with rollers or brushes PROC10
SC 7: Non-industrial spraying PROC11

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. ENVIRONMENTAL EXPOSURE CONTROL: Use at an industrial site leading to inclusion in article (ERC5)

Product features (article)

Covers a percentage of substance in the product up to 100%.
Physical form of the product: Liquid

Amount used (or contained in articles), frequency and duration of use/exposure

Annual amount per site: 30,000 tons/year
Daily amount per site: 100 tons/day

Conditions and measures related to sewage treatment plant

STP Type: Municipal wastewater treatment plant.
Learn more about STP: biological elimination.
STP sludge treatment: It may be landfilled when allowed by local regulations.
STP effluent: 2,000 m³/day

Other conditions affecting environmental exposure

Water flow on the receiving surface: 18,000 m³/day

2.2. WORKERS EXPOSURE CONTROL: Industrial spraying (PROC7)

Product features (article)

Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

1 - bis-[4-(2,3-epoxipropoxi)phenyl]propane - 1

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
If skin contamination is expected to extend to other parts of the body, these parts should also be protected with impermeable clothing equivalent to that described for the hands.
Wear suitable respirator.
Dermal: minimum efficiency of 99%.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Industrial or professional environments Professional use.
Temperature: Process temperature up to 70°C is assumed.

2.3. WORKERS EXPOSURE CONTROL: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities (PROC8a)

Product features (article)
Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa
Temperature: 70°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Provide a good standard of general ventilation (not less than 1 to 3 air changes per hour).
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 0%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Industrial or professional environments Professional use.
Temperature: 70°C

2.4. WORKERS EXPOSURE CONTROL: Transfer of substance or mixture (charging/discharging) from/to vessels/large containers at dedicated facilities. (PROC8b)

Product features (article)
Covers the percentage of substance in the product up to 100%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa
Temperature: 70°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 1 to 3 air changes per hour).

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.
Wear suitable respirator.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: 70°C

2.5. WORKERS EXPOSURE CONTROL: Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC9)

Product features (article)
Covers concentrations up to 100%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa
Temperature: < 50°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.
Wear suitable respirator.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: < 50°C

2.6. WORKERS EXPOSURE CONTROL: Application with rollers or brushes (PROC10)

Product features (article)
Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa
Temperature: < 70°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 1 to 3 air changes per hour).
Local exhaust ventilation.
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 90%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 99%.
Inhalation: minimum yield of 0%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: < 70°C.

2.7. WORKERS EXPOSURE CONTROL: Non-industrial spraying (PROC11)

Product features (article)

Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.
Temperature: < 40°C

Amount used (or contained in articles), frequency and duration of use/exposure

Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

Conditions and measures for personal protection, hygiene and health assessment

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
If skin contamination is expected to extend to other parts of the body, these parts should also be protected with impermeable clothing equivalent to that described for the hands.
Wear suitable respirator.
Dermal: minimum efficiency of 99%.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure

Outdoor / Indoor Inside.
Temperature: < 40°C.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Environmental release and exposure: Use at an industrial site leading to inclusion in article (ERC5)

Route release	Release rate	Method for estimating for release
water	0.06 kg/day	FEICA SPERC 8c.1 b.v1
air	0 kg/day	FEICA SPERC 8c.1 b.v1
Soil	0%	FEICA SPERC 8c.1 b.v1

Protection target	Estimated Exposure (EUSES v2.1)	RCR
Fresh water	3.22E-3mg/l	0,536
Fresh water sediments	0.155mg/l	0,454
Sea water	3.14E-4mg/l	0,523
Marine sediment	0.015mg/kg dry weight	0,442
Sewage treatment plant	0.028mg/l	< 0.01
Farmland	0.05mg/kg dry weight	0,779
Prey for predators (freshwater)	0.048mg/kg wet weight	< 0.01
Prey for predators (marine water)	4.53E-3mg/kg wet weight	< 0.01
Main predator prey (marine water)	1.64E-3mg/kg wet weight	< 0.01
Prey for Predators (Terrestrial)	0.056mg/kg wet weight	< 0.01
Man through the environment - inhalation	Concentration in air: 3.45E-11 mg/m³	< 0.01
Man through the environment - oral	1.47E-3mg/kg pc/giorno	< 0.01
Population exposed through the environment	-	< 0.01

3.2. Worker exposure: Industrial spraying (PROC7)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.34mg/m³ (ART v1.5)	0.069
inhalation	local	Long-term	0.34mg/m³ (ART v1.5)	-
inhalation	local	Short term	0.78mg/m³ (ART v1.5)	-
dermal	systemic	Long-term	0.257mg/kgbw/day (ECETOC TRA worker v3)	0.343
dermal	local	Short term	0.012mg/cm² (ECETOC TRA worker v3)	-
combined routes	-	-	-	0.412

3.3. Worker exposure: Transfer of a substance or a preparation (filling/emptying) at non-dedicated facilities (PROC8a)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.851mg/m³	0.173
inhalation	local	Long-term	0.851mg/m³	-
inhalation	local	Short term	0.851mg/m³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm²	-
combined routes	-	-	-	0.721

3.4. Worker exposure: Transfer of a substance or a mixture (fill/discharge) at dedicated facilities (PROC8b)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.085mg/m³	0.017
inhalation	local	Long-term	0.085mg/m³	-
inhalation	local	Short term	0.0851mg/m³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm²	-
combined routes	-	-	-	0.566

3.5. Worker exposure: Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC9)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.099mg/m³	0.02
inhalation	local	Long-term	0.099mg/m³	-
inhalation	local	Short term	0.993mg/m³	-
dermal	systemic	Long-term	0.343mg/kgbw/day	0.457
dermal	local	Short term	0.05mg/cm²	-
combined routes	-	-	-	0.659

1 - bis-[4-(2,3-epoxipropoxi)phenyl]propane - 1

3.6. Worker exposure: Application with rollers or brushes (PROC10)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.085mg/m³	0.017
inhalation	local	Long-term	0.085mg/m³	-
inhalation	local	Short term	0.085mg/m³	-
dermal	systemic	Long-term	0.165mg/kgbw/day	0.219
dermal	local	Short term	0.012mg/cm²	-
combined routes	-	-	-	0.237

3.7. Worker exposure: Non-industrial spraying (PROC11)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.34mg/m³ (ART v1 .5)	0.069
inhalation	local	Long-term	0.34mg/m³ (ART v1 .5)	-
inhalation	local	Short term	0.78mg/m³ (ART v1 .5)	-
dermal	systemic	Long-term	0.643mg/kgbw/day (ECETOC TRA worker v3)	0.857
dermal	local	Short term	0.03mg/cm² (ECETOC TRA worker v3)	-
combined routes	-	-	-	0.926

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

1 - bis-[4-(2,3-epoxipropoxi)phenyl]propane - 1

2-methoxy-1-methylethyl acetate

Substance identification
Chemical Name: 2-methoxy-1-methylethyl acetate
CAS number: 108-65-6
Date - Version: 02/08/2021 18.0

4. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in industrial plants
SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC4: Industrial use of processing aids not becoming part of articles.

Operating conditions

Yearly amount used in EU: 63,050,000 kg
Daily amount per site: 105.087 kg
Minimum continuous emission days per year: 300
Emission factor to air: 27%
Emission factor in water: 2%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Treat air emissions to provide a typical removal efficiency of 70%.
Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.1338
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 79,180 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 0.04 mg/m³
Risk Characterization Ratio (RCR): 0.0001
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Continuous process (closed system) with sample collection.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Film formation - Fast drying.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.5
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Mixing operations. General exposure (closed system).

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 93.85 mg/m³
Risk Characterization Ratio (RCR): 0.25
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch process (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application. Mixing operations (open systems).

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (automatic/robotic).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Carry out in a vented booth or extracted enclosure. Effectiveness: 95%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 46.93 mg/m³
Risk Characterization Ratio (RCR): 0.13
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 2.14 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.04

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (manual).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Effectiveness: 70%.
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 281.56 mg/m³
Risk Characterization Ratio (RCR): 0.76
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 8.57 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.17

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Non-dedicated system.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Dedicated plant.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Material transfers. Drum/batch transfers. Transfer from containers. Dedicated plant.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 5.49 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.11

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC14: Production of preparations or articles by tableting, compression, extrusion or pelletising. Production or preparation of articles by tableting, compression, extrusion.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 3.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.07

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

5. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in industrial plants
SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC4: Industrial use of processing aids not becoming part of articles.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 430kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 140.104 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure (closed system). General exposure.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Continuous process (closed system) with sample collection.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 7.51 mg/m³
Risk Characterization Ratio (RCR): 0.02
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Film formation - Fast drying.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Mixing operations. General exposure (closed system).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 18.77 mg/m³
Risk Characterization Ratio (RCR): 0.05
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch process (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 15.02 mg/m³
Risk Characterization Ratio (RCR): 0.04
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application. Mixing operations (open systems).

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (automatic/robotic). Spraying (manual)

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 8.57 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.17

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (manual).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Non-dedicated system.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Dedicated plant.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Material transfers. Drum/batch transfers. Transfer from containers. Dedicated plant.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 27.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.54

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC14: Production of preparations or articles by tableting, compression, extrusion or pelletising. Production or preparation of articles by tableting, compression, extrusion.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 3.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.07

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 7.51 mg/m³
Risk Characterization Ratio (RCR): 0.02
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

7 USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in professional installations
SU22; ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8a: Wide dispersive indoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8d: Wide dispersive outdoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste
Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source
Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 0.04 mg/m³
Risk Characterization Ratio (RCR): 0.0001
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.
The use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Use in confined systems (closed system). Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Preparation of material for application

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 93.85 mg/m³
Risk Characterization Ratio (RCR): 0.25
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch process (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.
The use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Alternatively: Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 269.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Ensure that operations are carried out externally.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Drum/batch transfers. Non-dedicated system.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Drum/batch transfers Dedicated plant.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 5.49 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.11

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.
Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Carry out in a vented booth or extracted enclosure. Effectiveness: 80%.
Wear a respirator conforming to EN140 with type A filter or better. Effectiveness: 90%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 2.14 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.04

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Ensure that operations are carried out externally. Effectiveness: 30%.
Wear a respirator conforming to EN140 with type A filter or better. Effectiveness: 90%.
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 131.4 mg/m³
Risk Characterization Ratio (RCR): 0.36
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 21.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.42

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Alternatively: Ensure that operations are carried out externally.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%.
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 14.14 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.28

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Ensure that operations are carried out externally.
Wear chemically resistant gloves in combination with “basic” employee training.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

8. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in professional installations
SU22; ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8a: Wide dispersive indoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8d: Wide dispersive outdoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste
Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source
Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure. General exposure (closed system).

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Use in confined systems (closed system). Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 15.02 mg/m³
Risk Characterization Ratio (RCR): 0.4
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Preparation of material for application

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 18.77 mg/m³
Risk Characterization Ratio (RCR): 0.05
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Indoor use.
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Drum/batch transfers. Non-dedicated system.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Drum/batch transfers Dedicated plant.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 27.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.54

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Indoor/Outdoor: Outdoor use.
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%.
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 10.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.21

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.
Wear chemically resistant gloves in combination with “basic” employee training.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Indoor use.
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 7.51 mg/m³
Risk Characterization Ratio (RCR): 0.02
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 28.29 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.56

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Outdoor use.
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

FASSA EPOXY 100 COMP.B

Fișa cu date de securitate din data 15/05/2026 versiunea 3

SECȚIUNEA 1: Identificarea substanței/amestecului și a societății/întreprinderii

1.1. Identificator de produs

Identificarea preparatului:

Nume comercial: FASSA EPOXY 100 COMP.B

Cod comercial: 1222.B

UFI: 75U2-X13E-100Q-171T

1.2. Utilizări relevante identificate ale substanței sau ale amestecului și utilizări contraindicate

Utilizarea recomandată: Amorsă epoxidică pentru sisteme FRP; Numai pentru uz profesional

Utilizări de evitat: Nu este destinat utilizării de către consumator

1.3. Detalii privind furnizorul fișei cu date de securitate

Compania: FASSA Srl

Via Lazzaris, 3 - 31027 Spresiano (TV) - ITALY

Tel. +39 0422 7222

Fax +39 0422 887509

Responsabil: laboratorio.spresiano@fassabortolo.it

1.4. Număr de telefon care poate fi apelat în caz de urgență

+40213183606

SECȚIUNEA 2: Identificarea pericolelor



2.1. Clasificarea substanței sau a amestecului

Regulamentul (CE) nr. 1272/2008 (CLP)

Acute Tox. 4	Nociv în caz de înghiţire.
Acute Tox. 4	Nociv în caz de inhalare.
Skin Corr. 1C	Provoacă arsuri grave ale pielii şi lezarea ochilor.
Skin Sens. 1	Poate provoca o reacţie alergică a pielii.
Repr. 2	Susceptibil de a dăuna fertilităţii. Susceptibil de a dăuna fătului.
STOT RE 2	Poate provoca leziuni ale organelor în caz de expunere prelungită sau repetată.
Aquatic Chronic 3	Nociv pentru mediul acvatic cu efecte pe termen lung.

Efecte fizico-chimice dăunătoare sănătăţii omului şi mediului înconjurător:

Nici un alt risc

2.2. Elemente de etichetare

Regulamentul (CE) nr. 1272/2008 (CLP)

Pictograme de pericol și cuvânt de avertizare



Pericol

Fraze de pericol

H302	Nociv în caz de înghiţire.
H314	Provoacă arsuri grave ale pielii şi lezarea ochilor.
H317	Poate provoca o reacţie alergică a pielii.
H332	Nociv în caz de inhalare.
H361fd	Susceptibil de a dăuna fertilităţii. Susceptibil de a dăuna fătului.
H373	Poate provoca leziuni ale organelor în caz de expunere prelungită sau repetată.
H412	Nociv pentru mediul acvatic cu efecte pe termen lung.

Fraze de precauţie

P260	Nu inspirați fumul/gazul/ceața/vaporii/spray-ul.

P264 Spălați-vă cu apă după utilizare.

P280 Purtaţi mănuşi/echipamente de protecţie şi protejaţi ochii/vederea.

P303+P361+P353 ÎN CAZ DE CONTACT CU PIELEA (sau cu părul): Scoateți imediat toată îmbrăcămintea contaminată. Clătiți pielea cu apă [sau faceți duș].

P305+P351+P338 ÎN CAZ DE CONTACT CU OCHII: Clătiți cu atenție cu apă timp de mai multe minute. Scoateți lentilele de contact, dacă este cazul și dacă acest lucru se poate face cu ușurință. Continuați să clătiți.

P310 Sunați imediat la un CENTRU DE INFORMARE TOXICOLOGICĂ/un medic.

Conţine:

3-aminometil-3,5,5-trimetilciclohexilamină

m-fenilenbis(metilamină)

alcool benzilic

produși de reacțieformaldehidă și 4-nonilfenol și trietilenotetramină și 2-piperazin-1-iletilamină

2-piperazin-1-iletilamină

3-aminopropiltrietoxisilan

Dispoziţii speciale conform Anexei XVII (REACH) cu modificările şi completările ulterioare:

Nici una

2.3. Alte pericole

Nu conține PBT, vPvB sau perturbatori endocrini prezenți în concentrații >= 0,1%.

Nici un alt risc

SECȚIUNEA 3: Compoziție/informații privind componenții

3.1. Substanțe

N.A.

3.2. Amestecuri

Identificarea preparatului: FASSA EPOXY 100 COMP.B

Componente periculoase în sensul Regulamentului CLP şi clasificarea corespunzătoare:

Cantitate	Nume	Nr. de Ident.	Clasificare	Număr de înregistrare:
≥30 - <50 %	m-fenilenbis(metilamină)	CAS:1477-55-0 EC:216-032-5	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412, EUH071 Toxicitate Acută Estimată: ATE - Oral: 500mg/kg gc ATE - Inhalare (Praf/ceaţă): 1.5mg/l	01-2119480150-50-xxxx
≥20 - <30 %	alcool benzilic	CAS:100-51-6 EC:202-859-9 Index:603-057-00-5	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Toxicitate Acută Estimată: ATE - Oral: 1200mg/kg gc	01-2119492630-38-xxxx
≥10 - <20 %	produși de reacțieformaldehidă și 4-nonilfenol și trietilenotetramină și 2-piperazin-1-iletilamină	EC:922-006-0	Eye Dam. 1, H318; Skin Sens. 1, H317; Skin Corr. 1B, H314	
≥10 - <20 %	3-aminometil-3,5,5-trimetilciclohexilamină	CAS:2855-13-2 EC:220-666-8 Index:612-067-00-9	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Limite de concentrație specifice: C ≥ 0.001%: Skin Sens. 1A H317 Toxicitate Acută Estimată: ATE - Oral: 1030mg/kg gc	01-2119514687-32-xxxx

≥3 - <5 %	2-piperazin-1-iletilamină	CAS:140-31-8 EC:205-411-0 Index:612-105-00-4	Acute Tox. 3, H311 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 2, H361fd STOT RE 1, H372 Aquatic Chronic 3, H412 Toxicitate Acută Estimată: ATE - Oral: 500mg/kg gc ATE - Dermică: 866mg/kg gc	01-2119471486-30-xxxx
≥0.5 - <1 %	3-aminopropiltrietoxisilan	CAS:919-30-2 EC:213-048-4 Index:612-108-00-0	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Toxicitate Acută Estimată: ATE - Oral: 500mg/kg gc	01-2119480479-24-xxxx

SECȚIUNEA 4: Măsuri de prim ajutor

4.1. Descrierea măsurilor de prim ajutor

În caz de contact cu pielea:

Îndepărtaţi imediat hainele contaminate şi eliminaţi-l în mod sigur.

OBTINETI ASISTENTA MEDICALA IMEDIATA

În caz de contact cu ochii:

În caz de contact cu ochii, clătiţi cu apă pentru un interval de timp corespunzător şi ţineţi deschise pleoapele, după care consultaţi imediat un oftalmolog.

Protejaţi ochiul lezat.

În caz de ingerare:

Nu daţi nimic de mâncat sau de băut.

Nu provocaţi vomitarea, adresaţi-vă unui medic arătând Fişa de Siguranţă şi eticheta produsului.

În caz de inhalare:

Conduceţi accidentatul la aer liber şi ţineţi-l la cald şi în repaus.

În caz de respiraţie neregulată sau absentă, efectuaţi respiraţia artificială.

În caz de inhalare consultaţi de îndată un medic şi arătaţi cutia sau eticheta.

4.2. Cele mai importante simptome și efecte, atât acute, cât și întârziate

Simptomele şi efectele sunt cele preconizate în secIiunea 2 cu privire la pericole.

4.3. Indicații privind orice fel de asistență medicală imediată și tratamentele speciale necesare

În caz de accident sau stare proastă consultaţi imediat un medic (dacă este posibil arătaţi instrucţiunile de folosinţă sau fişa de siguranţă).

SECȚIUNEA 5: Măsuri de combatere a incendiilor

5.1. Mijloace de stingere a incendiilor

Mijloace de stingere corespunzătoare:

CO2, stingătoare cu pulbere, spumă, apă pulverizată.

Mijloace de stingere care nu trebuie să fie utilizate din motive de siguranţă:

Jeturi de apă.

5.2. Pericole speciale cauzate de substanță sau de amestec

Combustia produce fum greu.

Nu inhalați gazele produse prin explozie și/sau prin combustie (monoxid de carbon, dioxid de carbon, oxizi de azot).

5.3. Recomandări destinate pompierilor

Folosiţi dispozitive respiratorii corespunzătoare.

Strângeţi separat apa contaminată folosită pentru stingerea incendiului. Nu o descărcaţi în reţeaua de canalizare.

Dacă este posibil din punct de vedere al siguranţei, îndepărtaţi din zona de pericol imediat recipientele neafectate.

SECȚIUNEA 6: Măsuri împotriva pierderilor accidentale

6.1. Precauții personale, echipament de protecție și proceduri de urgență

Pentru personalul care nu este implicat în situații de urgență:

Îmbrăcaţi dispozitivele de protecţie individuală.

În caz de expunere la vapori/pulberi/aerosoli folosiţi dispozitive de respirat.

Asiguraţi o aerisire corespunzătoare.

Utilizaţi o protecţie respiratorie corespunzătoare.

Citiţi măsurile de protecţie prezentate la punctele 7 şi 8.

Pentru personalul care intervine în situații de urgență:

Îmbrăcaţi dispozitivele de protecţie individuală.

6.2. Precauții pentru mediul înconjurător

Împiedicaţi penetrarea în sol/subsol. Împiedicaţi vărsarea în apele de suprafaţă sau în reţeaua de canalizare.

În caz de scurgere de gaz sau penetrare în cursuri de apă, sol sau sistemul de canalizare, informaţi autorităţile răspunzătoare.

6.3. Metode și material pentru izolarea incendiilor și pentru curățenie

Material corespunzător pentru colectare: material absorbant inert (de exemplu, nisip, vermiculit)

Dupa ce produsul a fost recuperat, clatiti suprafata si materialele folosite cu apa

Reţineţi apa de spălat contaminată şi eliminaţi-o.

6.4. Trimiteri către alte secțiuni

Vezi şi paragrafele 8 şi 13

SECȚIUNEA 7: Manipulare și depozitare

7.1. Precauții pentru manipularea în condiții de securitate

Evitați contactul cu pielea și ochii, precum și inhalarea vaporilor și a ceții.

Folosiţi un sistem de ventilare localizat.

Nu folosiţi recipiente goale înainte de a fi curăţate.

Înaintea operaţiilor de transfer, asiguraţi-vă că în recipiente nu sunt materiale rezidue incompatibile.

Sfaturi privind igiena generală la locul de muncă:

Hainele contaminate trebuie înlocuite înainte de accesul la zona de prânz.

Nu mincati sau beti in timpul lucrului

Se face trimitere şi la paragraful 8 pentru dispozitivele de protecţie recomandate.

7.2. Condiții de depozitare în condiții de securitate, inclusiv eventuale incompatibilități

Păstrați recipientele bine închise într-un spațiu răcoros și bine ventilat, la distanță de surse de căldură.

Ţineţi departe de alimente, băuturi şi hrană pentru animale.

Materiale incompatibile

Vezi pct. 10.5

Instructiuni privind spatiile de depozitare:

Spatii ventilate adecvat

7.3. Utilizare (utilizări) finală (finale) specifică (specifice)

Recomandări

Vezi pct. 1.2

Soluţii specifice pentru sectorul industrial

Nici o utilizare particulară

SECȚIUNEA 8: Controale ale expunerii/protecția personală

8.1. Parametri de control

Limitele de expunere profesională

m-fenilenbis(metilamină)

CAS: 1477-55-0	Tip OEL	ACGIH		Termen scurt Plafon - 0.018 ppm Note: Skin - Eye, skin, and GI irr
	Tip OEL	MAK	Austria	Termen lung 0.1 mg/m3
	Tip OEL	VLEP	Belgia	Termen scurt 0.1 mg/m3
	Tip OEL	VLEP	Franţa	Termen scurt 0.1 mg/m3
	Tip OEL	SUVA	Elveţia	Termen lung 0.1 mg/m3

alcool benzilic

CAS: 100-51-6	Tip OEL	MAK	Germania	Termen lung 22 mg/m3 - 5 ppm; Termen scurt 44 mg/m3 - 10 ppm Note: Inhalable fraction and vapour, Skin
	Tip OEL	TLV	Bulgaria	Termen lung 5 mg/m3
	Tip OEL	TLV	Cehia	Termen lung 40 mg/m3 - 8.88 ppm; Termen scurt 80 mg/m3 - 17.76 ppm
	Tip OEL	SUVA	Elveţia	Termen lung 22 mg/m3 - 5 ppm
	Tip OEL	AGW	Germania	Termen lung 22 mg/m3 - 5 ppm; Termen scurt 44 mg/m3 - 10 ppm Note: Inhalable fraction and vapour
	Tip OEL	NDS	Polonia	Termen lung 240 mg/m3
	Tip OEL	MV	Slovenia	Termen lung 22 mg/m3 - 5 ppm; Termen scurt 44 mg/m3 - 10 ppm Note: Skin
	Tip OEL	IPRV	Lituania	Termen lung 5 mg/m3 Note: Skin

Valori limită de expunere PNEC

m-fenilenbis(metilamină)

CAS: 1477-55-0 Cale de expunere: Apă sărată; PNEC Limită: 0.009 mg/l
Cale de expunere: Apă dulce; PNEC Limită: 0.094 mg/l
Cale de expunere: Apă sărată; PNEC Limită: 0.043 mg/kg
Cale de expunere: Apă dulce; PNEC Limită: 0.43 mg/kg
Cale de expunere: Sol (agricol); PNEC Limită: 0.045 mg/kg
Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 10 mg/l

alcool benzilic

CAS: 100-51-6 Cale de expunere: Apă dulce; PNEC Limită: 1 mg/l
Cale de expunere: Apă sărată; PNEC Limită: 0.1 mg/l
Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 39 mg/l
Cale de expunere: Sedimente în apă dulce; PNEC Limită: 5.27 mg/kg
Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.527 mg/kg
Cale de expunere: Sol (agricol); PNEC Limită: 0.456 mg/kg

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2 Cale de expunere: Apă dulce; PNEC Limită: 0.06 mg/l
Cale de expunere: Apă sărată; PNEC Limită: 0.006 mg/l
Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 3.18 mg/l
Cale de expunere: Sedimente în apă dulce; PNEC Limită: 5.784 mg/kg
Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.578 mg/kg
Cale de expunere: Sol (agricol); PNEC Limită: 1.121 mg/kg

2-piperazin-1-iletilamină

CAS: 140-31-8 Cale de expunere: Apă dulce; PNEC Limită: 0.058 mg/l
Cale de expunere: Apă sărată; PNEC Limită: 5.8 µg/l
Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 250 mg/l
Cale de expunere: Sedimente în apă dulce; PNEC Limită: 215 mg/kg
Cale de expunere: Sedimente în apă sărată; PNEC Limită: 21.5 mg/kg
Cale de expunere: Sol; PNEC Limită: 1 mg/kg

3-aminopropiltrietoxisilan

CAS: 919-30-2 Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 1.3 mg/l

Nivel Derivat Fără Efect (DNEL)

m-fenilenbis(metilamină)

CAS: 1477-55-0 Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 0.33 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător profesionist: 0.2 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 1.2 mg/m3

alcool benzilic

CAS: 100-51-6 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător profesionist: 110 mg/m3; Consumator: 27 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 22 mg/m3; Consumator: 5.4 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător profesionist: 40 mg/kg; Consumator: 20 mg/kg

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 8 mg/kg; Consumator: 4 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 20 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 4 mg/kg

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător profesionist: 0.073 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător profesionist: 0.073 mg/m3

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 0.3 mg/kg/day

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 0.3 mg/kg/day

2-piperazin-1-iletilamină

CAS: 140-31-8 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător: 10.6 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 10.6 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător: 0.015 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător: 0.08 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 3.33 mg/kg

3-aminopropiltrietoxisilan

CAS: 919-30-2 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 14 mg/m3; Consumator: 3.5 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 2 mg/kg; Consumator: 1 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 1 mg/kg

8.2. Controale ale expunerii

Asigurați o ventilație adecvată. Atunci când este rezonabil posibil, aceasta se poate obține prin utilizarea de ventilație de schimb și a unei aspirații generale bune.

Protectia ochilor

Ochelari cu protecție laterală (EN 16321).

Protectia pielii

Utilizați îmbrăcăminte corespunzătoare pentru protecția completă a pielii, în funcție de activitate și expunere (EN 14605/EN 13982), de exemplu salopetă de lucru, șorț, încălțăminte de siguranță, îmbrăcăminte corespunzătoare.

Protectia mainilor

Nu există niciun material sau combinație de materiale pentru mănuși care să poată garanta o rezistență nelimitată la orice produs chimic sau combinație de produse.

Pentru manipulare prelungită sau repetată, utilizați mănuși rezistente la produse chimice.

Tipul de mănuși adecvate (EN 374/EN 16523); FKM (fluor cauciuc): grosime >= 0.4 mm; timp de penetrare >= 480 min. NBR (cauciuc nitrilic): grosime >= 0.4 mm; timp de penetrare >= 480 min

Alegerea mănușilor potrivite nu depinde numai de material, ci și de alte caracteristici de calitate care variază de la un producător la altul, precum și de metodele și timpii de utilizare a amestecului.

Protectie respiratorie

Dacă lucrătorii sunt expuși la concentrații mai mari decât limitele de expunere, trebuie să poarte aparate respiratorii certificate.

Filtru amestec (EN 14387): mască cu filtru A-P2.

Controale de expunere ambientală:

Vezi pct. 6.2

Măsurile de igienă și tehnice

Vezi alineatul 7.

SECȚIUNEA 9: Proprietățile fizice și chimice

9.1. Informații privind proprietățile fizice și chimice de bază

Stare fizică: Lichid

Aspect: Lichid

Culoare: de culoarea chihlimbarului

Miros: amină

Punctul de topire/punctul de înghețare: N.D.
Punctul de fierbere sau punctul inițial de fierbere și intervalul de fierbere: N.D.
Inflamabilitatea: N.A.
Limita inferioară și superioară de explozie: N.D.
Punctul de aprindere: N.A.
Temperatura de autoaprindere: N.D.
Temperatura de descompunere: N.A.
pH: N.A.
Viscozitatea cinematică: N.A.
Solubilitatea in apa: N.A.
Solubilitate în ulei: Solubil
Coeficientul de partiție n-octanol/apă (valoarea log): N.A.
Presiunea vaporilor: N.D.
Densitatea și/sau densitatea relativă: 0.991 kg/l (Metoda internă)
Densitatea relativă a vaporilor: N.D. N.A.
Caracteristicile particulei:
Dimensiunea particulei: N.A.

9.2. Alte informații

Proprietati explozive: N.A. (Evaluare internă)
Proprietati oxidante: N.A. (Evaluare internă)

SECȚIUNEA 10: Stabilitate și reactivitate

10.1. Reactivitate

Stabilă în condiţii normale

10.2. Stabilitate chimică

Stabilă în condiţii normale

10.3. Posibilitatea de reacții periculoase

Se poate aprinde in contact cu agenti puternic oxidanti
Din cauza efectului căldurii sau în caz de incendiu, se pot elibera oxizi de carbon și vapori care pot fi dăunători pentru sănătate.

10.4. Condiții de evitat

Evitați apropierea de surse de căldură.

10.5. Materiale incompatibile

Agenți de oxidare puternici, agenți de reducere puternici, amine alifatice și aromatice.
Vezi pct. 10.3

10.6. Produși de descompunere periculoși

În cazul depozitării și manipulării adecvate, nu există produse de descompunere periculoase.
Vezi pct. 5.2

SECȚIUNEA 11: Informații toxicologice

11.1. Informații privind clasele de pericol definite în Regulamentul (CE) nr. 1272/2008

Informații toxicologice ale produsului:

a) toxicitate acută	Produsul este clasificat: Acute Tox. 4(H302), Acute Tox. 4(H332)
b) corodarea/iritarea pielii	Produsul este clasificat: Skin Corr. 1C(H314)
c) lezarea gravă/iritarea ochilor	Neclasificat Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
d) sensibilizarea căilor respiratorii sau a pielii	Produsul este clasificat: Skin Sens. 1(H317)
e) mutagenitatea celulelor germinative	Neclasificat Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
f) cancerogenitatea	Neclasificat Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
g) toxicitatea pentru reproducere	Produsul este clasificat: Repr. 2(H361)
h) STOT (toxicitate asupra organelor țintă specifice) - expunere unică	Neclasificat Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
i) STOT (toxicitate asupra organelor țintă specifice) -	Produsul este clasificat: STOT RE 2(H373)

expunere repetată

j) pericol prin aspirare — Neclasificat

Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.

Informații toxicologice referitoare la substanțele principale găsite în acest produs:

m-fenilenbis(metilamină)

CAS: 1477-55-0 a) toxicitate acută

ATE - Oral: 500 mg/kg gc
ATE - Inhalare (Praf/ceaţă): 1.5 mg/l
LD50 Piele Șobolan > 3100 mg/kg
LD50 Oral Șobolan 930 mg/kg
LC50 Inhalări de aerosoli Șobolan 1.34 mg/l 4h

alcool benzilic

CAS: 100-51-6 a) toxicitate acută

ATE - Oral: 1200 mg/kg gc
LD50 Oral Șobolan 1620 mg/kg

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2 a) toxicitate acută

ATE - Oral: 1030 mg/kg gc
LC50 Inhalări de aerosoli Șobolan > 5.01 mg/l 4h
LD50 Piele Șobolan > 2000 mg/kg gc

2-piperazin-1-iletilamină

CAS: 140-31-8 a) toxicitate acută

ATE - Oral: 500 mg/kg gc
ATE - Dermică: 866 mg/kg gc

3-aminopropiltrietoxisilan

CAS: 919-30-2 a) toxicitate acută

ATE - Oral: 500 mg/kg gc
LD50 Oral Șobolan 1490 mg/kg
LD50 Piele Iepure 4075 mg/kg

11.2. Informații privind alte pericole

Proprietăți de perturbator endocrin:

Nu conține perturbatori endocrini prezenți în concentrații >= 0,1%

SECȚIUNEA 12: Informații ecologice

A se adopta bune practici de productie astfel incat produsul sa nu fie eliberat in mediu

12.1. Toxicitate

Informaţii Ecotoxicologice:

Nociv pentru mediul acvatic cu efecte pe termen lung.

Lista proprietatilor Eco-toxicologice ale produsului

Produsul este clasificat: Aquatic Chronic 3(H412)

Lista componentelor cu proprietăţi ecotoxicologice

m-fenilenbis(metilamină)

CAS: 1477-55-0

a) Toxicitate acvatică acută: LC50 Pește 87.6 mg/l 96h
a) Toxicitate acvatică acută: EC50 Alge 20.3 mg/l 72h
a) Toxicitate acvatică acută: EC50 Daphnia 15.2 mg/l 48h
b) Toxicitatea acvatică cronică: NOEC Daphnia 4.7 mg/l 21d
b) Toxicitatea acvatică cronică: NOEC Alge 10.5 mg/l 72h

alcool benzilic

CAS: 100-51-6

a) Toxicitate acvatică acută: LC50 Pește 460 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 230 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 770 mg/l 72h
b) Toxicitatea acvatică cronică: NOEC Daphnia 51 mg/l 21d
b) Toxicitatea acvatică cronică: NOEC Alge 310 mg/l 72h

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2

a) Toxicitate acvatică acută: LC50 Pește 110 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 23 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge > 50 mg/l 72h

b) Toxicitatea acvatică cronică: NOEC Daphnia 3 mg/l 21d

2-piperazin-1-iletilamină

CAS: 140-31-8 a) Toxicitate acvatică acută: LC50 Pește 2190 mg/l 96h

a) Toxicitate acvatică acută: EC50 Daphnia 58 mg/l 48h

a) Toxicitate acvatică acută: EC50 Alge > 1000 mg/l 72h

3-aminopropiltrietoxisilan

CAS: 919-30-2 a) Toxicitate acvatică acută: LC50 Pește > 934 mg/l 96h

a) Toxicitate acvatică acută: EC50 Daphnia 331 mg/l 48h

a) Toxicitate acvatică acută: EC50 Alge 603 mg/l 72h

12.2. Persistență și degradabilitate

m-fenilenbis(metilamină)

CAS: 1477-55-0 Degradabil în mod lent

alcool benzilic

CAS: 100-51-6 Degradabil în mod rapid

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2 Degradabil în mod lent

3-aminopropiltrietoxisilan

CAS: 919-30-2 Degradabil în mod lent

12.3. Potențial de bioacumulare

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2 Nu este supus bioacumulării

3-aminopropiltrietoxisilan

CAS: 919-30-2 Nu este supus bioacumulării

12.4. Mobilitate în sol

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2 Test: Log Koc; Valoare: 2.970

2-piperazin-1-iletilamină

CAS: 140-31-8 Test: Log Koc

3-aminopropiltrietoxisilan

CAS: 919-30-2 Test: Log Koc; Valoare: -0.600

12.5. Rezultatele evaluărilor PBT și vPvB

În baza datelor disponibile, produsul nu conţine substanţe PBT/vPvB în procentaj ≥ de 0.1%.

12.6. Proprietăți de perturbator endocrin

Nu conține perturbatori endocrini prezenți în concentrații >= 0,1%

12.7. Alte efecte adverse

N.A.

SECȚIUNEA 13: Considerații privind eliminarea

13.1. Metode de tratare a deșeurilor

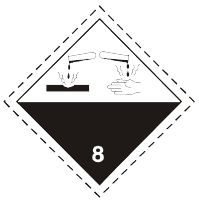
A se recupera, daca este posibil. A se trimite catre punctele de depozitare sau de incinerare, in conditii controlate. A se respecta regulamentele locale in vigoare

Nu permiteți pătrunderea produsului în sistemul de canalizare sau în cursurile de apă.

Recipientele contaminate cu produs, în conformitate cu dispozițiile legale locale sau naționale.

Odată ce produsul a expirat, acesta trebuie eliminat în conformitate cu reglementările în vigoare.

SECȚIUNEA 14: Informații referitoare la transport



14.1. Numărul ONU sau numărul de identificare

2735

14.2. Denumirea corectă ONU pentru expediție

ADR-Nume transport îmbarcare: AMINE LICHIDE, COROZIVE, N.D. (m-fenilenbis(metilamină) - produși de reacțieformaldehidă și 4-nonilfenol și trietilenotetramină și 2-piperazin-1-iletilamină)

IATA-Nume transport îmbarcare: AMINES, LIQUID, CORROSIVE, N.O.S. POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-fenilenbis(metilamină) - produși de reacțieformaldehidă și 4-nonilfenol și trietilenotetramină și 2-piperazin-1-iletilamină)

IMDG-Nume transport îmbarcare: AMINES, LIQUID, CORROSIVE, N.O.S. POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-fenilenbis(metilamină) - produși de reacțieformaldehidă și 4-nonilfenol și trietilenotetramină și 2-piperazin-1-iletilamină)

14.3. Clasa (clasele) de pericol pentru transport

ADR-clasa: 8

IATA-Clasa: 8

IMDG-Clasa: 8

14.4. Grupul de ambalare

ADR-Grup Ambalare: III

IATA-Grup Ambalare: III

IMDG-Grup Ambalare: III

14.5. Pericole pentru mediul înconjurător

Poluant marin: Nu

Poluant ambiental: Nu

IMDG-EMS: F-A, S-B

14.6. Precauții speciale pentru utilizatori

Drumuri şi Căi Ferate (ADR-RID):

ADR-Etichetă: 8

ADR - Număr de identificare a pericolului: 80

ADR-Dispoziţii Speciale: 274

ADR-Cod de restricţie în tunel:

Aer (IATA):

IATA-Aeronavă de pasagerit: 852

IATA-Aeronavă de marfă: 856

IATA-Etichetă: 8

IATA-Riscul secundar: -

IATA-Erg: 8L

IATA-Dispoziţii Speciale: A3 A803

Mare (IMDG):

IMDG-Depozitare și manipulare: Category A

IMDG-Segregare: SG35 SGG18

IMDG-Riscul secundar: -

IMDG-Dispoziţii Speciale: 223 274

14.7. Transportul maritim în vrac în conformitate cu instrumentele OMI

N.A.

SECȚIUNEA 15: Informații de reglementare

15.1. Regulamente/legislație în domeniul securității, al sănătății și al mediului specifice (specifică) pentru substanța sau amestecul în cauză

Directiva 98/24/CE (Riscuri în legătură cu agenţii chimici la locul de muncă)

Directiva 2000/39/CE (Valori limită a expunerii profesionale)

Directiva 2010/75/UE

Regulamentul (CE) nr. 1907/2006 (REACH)

Regulamentul (CE) nr. 1272/2008 (CLP)

Regulamentul (CE) nr. 790/2009 (ATP 1 CLP) și (EU) nr. 758/2013

Regulamentul (EU) nr. 2020/878

Regulamentul (EU) nr. 286/2011 (ATP 2 CLP)

Regulamentul (EU) nr. 618/2012 (ATP 3 CLP)

Regulamentul (EU) nr. 487/2013 (ATP 4 CLP)

Regulamentul (EU) nr. 944/2013 (ATP 5 CLP)
Regulamentul (EU) nr. 605/2014 (ATP 6 CLP)
Regulamentul (EU) nr. 2015/1221 (ATP 7 CLP)
Regulamentul (EU) nr. 2016/918 (ATP 8 CLP)
Regulamentul (EU) nr. 2016/1179 (ATP 9 CLP)
Regulamentul (EU) nr. 2017/776 (ATP 10 CLP)
Regulamentul (EU) nr. 2018/669 (ATP 11 CLP)
Regulamentul (EU) nr. 2018/1480 (ATP 13 CLP)
Regulamentul (EU) nr. 2019/521 (ATP 12 CLP)
Regulamentul (EU) nr. 2020/217 (ATP 14 CLP)
Regulamentul (EU) nr. 2020/1182 (ATP 15 CLP)
Regulamentul (EU) nr. 2021/643 (ATP 16 CLP)
Regulamentul (EU) nr. 2021/849 (ATP 17 CLP)
Regulamentul (EU) nr. 2022/692 (ATP 18 CLP)
Regulamentul (UE) nr. 2023/707
Regulamentul (EU) nr. 2023/1434 (ATP 19 CLP)
Regulamentul (EU) nr. 2023/1435 (ATP 20 CLP)
Regulamentul (EU) nr. 2024/197 (ATP 21 CLP)
Regulamentul (EU) nr. 2024/2564 (ATP 22 CLP)
Regulamentul (EU) nr. 2024/2865
Regulamentul (EU) nr. 2025/1222 (ATP 23 CLP)

Restricţii referitoare la produsele sau substanţele conţinute de acestea conform Anexei XVII Regulamentul (CE) 1907/2006 (REACH) cu modificările ulterioare:

Restricții referitoare la produs: 3

Restricții referitoare la substanțele conținute: 75

Dispoziții în legătură cu directiva EU 2012/18 (Seveso III):

Nici una

Regulamentul (UE) nr. 649/2012 (Regulamentul PIC)

Nu există substanțe menționate

Clasa Germană a Periculozităţii Apei

Clasa 3: foarte periculos.

Substanţe SVHC:

În baza datelor disponibile, produsul nu conţine substanţe SVHC în procentaj ≥ de 0.1%.

15.2. Evaluarea securității chimice

Nu a fost efectuată nici o Evaluare de Securitate Chimică pentru amestecul. Consultați scenariile de expunere ale substanțelor anexate acestei fișe de securitate. La consultarea scenariilor, luați în considerare eventualele limitări de utilizare indicate în secțiunea 1.2.

SECȚIUNEA 16: Alte informații

Cod	Descriere
EUH071	Corosiv pentru căile respiratorii.
H302	Nociv în caz de înghiţire.
H311	Toxic în contact cu pielea.
H314	Provoacă arsuri grave ale pielii şi lezarea ochilor.
H317	Poate provoca o reacţie alergică a pielii.
H318	Provoacă leziuni oculare grave.
H319	Provoacă o iritare gravă a ochilor.
H332	Nociv în caz de inhalare.
H361fd	Susceptibil de a dăuna fertilităţii. Susceptibil de a dăuna fătului.
H372	Provoacă daune organelor în caz de expunere îndelungată sau repetată prin inhalare.
H373	Poate provoca leziuni ale organelor în caz de expunere prelungită sau repetată.
H412	Nociv pentru mediul acvatic cu efecte pe termen lung.

Cod	Clasa de pericol şi categoria de pericol	Descriere
3.1/3/Dermal	Acute Tox. 3	Toxicitate acută (dermică), Categoria 3
3.1/4/Inhal	Acute Tox. 4	Toxicitate acută (inhalare), Categoria 4
3.1/4/Oral	Acute Tox. 4	Toxicitate acută (orală), Categoria 4
3.2/1B	Skin Corr. 1B	Corodarea pielii, Categoria 1B

3.2/1C	Skin Corr. 1C	Corodarea pielii, Categoria 1C
3.3/1	Eye Dam. 1	Lezarea gravă a ochilor, Categoria 1
3.3/2	Eye Irrit. 2	Iritarea ochilor, Categoria 2
3.4.2/1	Skin Sens. 1	Sensibilizarea pielii, Categoria 1
3.4.2/1A	Skin Sens. 1A	Sensibilizarea pielii, Categoria 1A
3.4.2/1B	Skin Sens. 1B	Sensibilizarea pielii, Categoria 1B
3.7/2	Repr. 2	Toxicitate pentru reproducere, Categoria 2
3.9/1	STOT RE 1	Toxicitate asupra unui organ ţintă specific – expunere repetată, Categoria 1
3.9/2	STOT RE 2	Toxicitate asupra unui organ ţintă specific – expunere repetată, Categoria 2
4.1/C3	Aquatic Chronic 3	Pericol cronic (pe termen lung) pentru mediul acvatic, Categoria 3

Clasificarea și procedura utilizate pentru realizarea clasificării pentru amestecuri în conformitate cu Regulamentul (CE) nr. 1272/2008 [CLP]:

Clasificare conform Regulamentului (CE) nr. 1272/2008	Procedura de clasificare
Acute Tox. 4, H302	Metoda de calcul
Acute Tox. 4, H332	Metoda de calcul
Skin Corr. 1C, H314	Metoda de calcul
Skin Sens. 1, H317	Metoda de calcul
Repr. 2, H361fd	Metoda de calcul
STOT RE 2, H373	Metoda de calcul
Aquatic Chronic 3, H412	Metoda de calcul

Acest document a fost întocmit de un tehnician competent în domeniul SDS şi care este pregătit în mod corespunzător.

Principalele surse bibliografice:

ECDIN - Rețeaua de date și informații de mediu privind produsele chimice - Centrul comun de cercetare, Comisia Comunităților Europene

SAX PROPRIETĂȚI PERICULOASE ALE MATERIALELOR INDUSTRIALE - Ediția a opta - Van Nostrand Reinold

Fișe tehnice de securitate ale furnizorilor de materii prime.

Aceste informatii se bazeaza pe cunostintele detinute la data mentionata mai sus. Se refera numai la produsul mentionat si nu constitue o garantie a calitatii pentru cazurile particulare

Este de datoria utilizatorului sa se asigure ca aceste informatii sunt adecvate si corespund domeniului specific de utilizare

Aceasta FTS anuleaza si inlocuieste pe cele emise anterior.

Legenda cu abrevierile şi acronimele folosite în fişa cu date de securitate

ACGIH: Conferința Americană a Igieniștilor Industriali Guvernamentali

ADR: Acordul European referitor la Încărcătura Internaţională de Bunuri Periculoase pe Drumuri

ATE: Toxicitate Acută Estimată

ATEmix: Estimarea toxicităţii acute (Amestecuri)

BEI: Index de Expunere Biologică

CAS: Chemical Abstracts Service (departament al Societăţii Americane de Chimie)

CAV: Centrul de Otrăvuri

CE: Comunitatea Europeană

CLP: Clasificare, Etichetare, Ambalare

CMR: Cancerigene, Mutagene și Toxice pentru reproducere

COV: Compus Organic Volatil

CSA: Evaluarea Securității Chimice

CSR: Raportul Securității Chimice

DNEL: Nivel Derivat Fără Efect

EC50: Jumătate din Concentrația Efectivă Maximă

ECHA: Agenția Europeană pentru Produse Chimice

EINECS: Inventarul European al Substanţelor Chimice Existente pe piaţă

ES: Scenariul de Expunere

GefStoffVO: Ordonanţă în legătură cu Substanţele Periculoase, Germania

GHS: Sistemul Mondial Armonizat de Clasificare şi Etichetare a Produselor Chimice

IARC: Agenția Internațională pentru Cercetare în Domeniul Cancerului

IATA: Asociaţia Internaţională de Transport Aerian

IC50: jumătate din concentrația inhibitorie maximă

IMDG: Coduri Maritime Internaţionale pentru Bunurile Periculoase

LC50: Concentraţia letală pentru un procent de 50% din populaţia test

LD50: Doza letală pentru un procent de 50% din populaţia test

LDLo: Doză Letală Scăzută
N.A.: Nu se aplică
N/A: Nu se aplică
N/D: Nedefinit/Nu este disponibil
N.D.: Nu este disponibil
NIOSH: Institutul Național pentru Securitate și Sănătate în Muncă
NOAEL: Nu există un Nivel al Efectelor Adverse Observat
OSHA: Administrația Securității și Sănătății în Muncă.
PBT: Persistente, Bioacumulative și Toxice
PGK: Instrucțiuni de ambalare
PNEC: Concentraţia Fără Efect Prevăzută
PSG: Pasageri
RID: Regulamentul Referitor la Transportul Internaţional de Bunuri Periculoase pe Calea Ferată
STEL: Limita de Expunere pe Termen Scurt
STOT: Toxicitatea pentru Organul Ţintă Specific
TLV: Valoarea Limită a Pragului
TLV-TWA: Valoarea Limită a Pragului pentru Durata Ponderată Medie 8 ore pe zi (Standard ACGIH)
vPvB: Foarte Persistent, Foarte Bioacumulativ.
WGK: Clasa Germană a Periculozităţii Apei

Paragrafe modificate de la ultima revizuire:

- SECȚIUNEA 1: Identificarea substanței/amestecului și a societății/întreprinderii
- SECȚIUNEA 2: Identificarea pericolelor
- SECȚIUNEA 3: Compoziție/informații privind componenții
- SECȚIUNEA 8: Controale ale expunerii/protecția personală
- SECȚIUNEA 9: Proprietățile fizice și chimice
- SECȚIUNEA 11: Informații toxicologice
- SECȚIUNEA 12: Informații ecologice
- SECȚIUNEA 15: Informații de reglementare

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Substance identification
Chemical Name: 3-aminomethyl-3,5,5-trimethylcyclohexylamine
CAS number: 2855-13-2
EU index number: 612-067-00-9
EINECS number: 220-666-8

ES1 Formulation or repackaging - INDUSTRIAL USES

1. TITLE SECTION

Exposure scenario name: Preparation and repackaging of substances and mixtures
Date - Version: 15/07/2020 - 1.0
Life cycle stage: Formulation or repackaging
Main user group: Industrial uses
Sector(s) of use: Industrial uses (SU3) - Large-scale production of basic chemicals (including petroleum products) (SU8) - Formulation [blending] of preparations and/or repackaging (SU10)

Contributing scenario - Environment
CS1 Wet formulation: ERC2

Contributing scenario - Worker
CS2 Use in closed systems: PROC3
CS3 Material Transfers: PROC8a
CS4 Material Transfers: PROC8b
CS5 Material Transfers: PROC9
CS6 Blend Operations: PROC5

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. CS1 Environment Contributing Scenario: Wet Formulation (ERC2)

Environmental release categories: Formulation of mixtures (ERC2)

Product features (article)
Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use
Amounts used: Annual amount per site 2500 t
Release Type: Continuous release
Issue days: 300 days/year
Further environmental conditions:
Wet formulation
Air - minimum efficiency of: 0.25 %
Ground - minimum efficiency of: 0.01 %
Water - minimum efficiency of: 0.5 %

Measures and technical-organizational conditions
Control measures to prevent releases:
Air - minimum efficiency of: 0.25 %
Ground - minimum efficiency of: 0.01 %
Water - minimum efficiency of: 0.5 %

Conditions and measures for the municipal sewage treatment plant
Type of sewage treatment plant (STP): Municipal STP
STP effluent (m^3/day): 8640

Conditions and measures for waste treatment (including the product waste)
Waste treatment: Do not spread industrial sludge on natural soils.

Other operational conditions affecting environmental exposure
Local seawater dilution factor: 100
Local fresh water dilution factor: 11
Flow rate of receiving surface water: 86400
Indoor use

2.2. CS2 Worker Contributing Scenario: Use in Closed Systems (PROC3)

Process categories: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC3)

Product features (article)
Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure
Duration: 480 min
Frequency: 5 days/week

Measures and technical-organizational conditions
Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment:
Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency of: 95 %

Other operational conditions affecting worker exposure
Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.
Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure.

2.3. CS3 Worker Contributing Scenario: Material Transfers (PROC8a)

Process categories: Transfer of a substance or a preparation (filling/emptying) at non-dedicated facilities (PROC8a)

Product features (article)
Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure
Duration: 240 min
Frequency: 5 days/week

Measures and technical-organizational conditions
Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure
Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure.

2.4. CS4 orker Contributing Scenario: Material Transfers (PROC8b)

Process categories: Transfer of a substance or a preparation (filling/emptying) at dedicated facilities (PROC8b)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 480 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 97%
Body parts exposed: Palm of a hand. Possible skin contact is believed to be limited to the hands.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure. Wear suitable face protection.

2.5. CS5 Worker Contributing Scenario: Material Transfers (PROC9)

Process categories: Transfer of a substance or preparation (filling/emptying) (dedicated filling line, including weighing) (PROC9)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 480 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand. Possible skin contact is believed to be limited to the hands.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure. Wear suitable face protection.

2.6. CS6 Worker Contributing Scenario: Mixing Operations (PROC5)

Process categories: Mixing or Blending in Batch Processes (PROC5)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 480 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. CS1 Environment Contributing Scenario: Wet Formulation (ERC2)

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
sea water	1,025 kg/day	ECETOC TRA environment v2.0	0.81

3.2. CS2 Worker Contributing Scenario: Use in Closed Systems (PROC3)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	4,258 mg/m³	ECETOC TRA worker v2.0	0.212

3.3. CS3 Worker Contributing Scenario: Material Transfers (PROC8a)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706
by inhalation, systemic, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706

3.4. CS4 orker Contributing Scenario: Material Transfers (PROC8b)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	2,129 mg/m³	ECETOC TRA worker v2.0	0.106
by inhalation, systemic, short-term	2,129 mg/m³	ECETOC TRA worker v2.0	0.106

3.5. CS5 Worker Contributing Scenario: Material Transfers (PROC9)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353
by inhalation, systemic, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353

3.6.CS6 Worker Contributing Scenario: Mixing Operations (PROC5)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353
by inhalation, systemic, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Guidance to check compliance with the exposure scenario: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

ES2 Formulation or repackaging - PROFESSIONAL USES

1. TITLE SECTION

Exposure scenario name: Preparation and repackaging of substances and mixtures
Date - Version: 10/03/2020 - 1.0
Life cycle stage: Formulation or repackaging
Main user group: Professional uses
Sector(s) of use: Manufacture of bulk, large scale chemicals (including petroleum products) (SU8) - Formulation [mixing] of preparations and/or re-packaging (SU10) - Professional uses (SU22)

Contributing scenario - Environment

CS1 Wet formulation: ERC2

Contributing scenario - Worker

CS2 Use in closed systems: PROC3
CS3 Material Transfers: PROC8a
CS3 Material Transfers: PROC8b
CS3 Material Transfers: PROC9
CS6 Blend Operations: PROC5

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.2. CS1 Environment Contributing Scenario: Wet Formulation (ERC2)

Environmental release categories: Formulation of mixtures (ERC2)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use

Amounts used: Annual amount per site 2500 t
Release Type: Continuous release
Issue days: 300 days/year
Further environmental conditions:
Wet formulation
Air - minimum efficiency of: 0.25 %
Ground - minimum efficiency of: 0.01 %
Water - minimum efficiency of: 0.5 %

Measures and technical-organizational conditions

Control measures to prevent releases:
Air - minimum efficiency of: 0.25 %
Ground - minimum efficiency of: 0.01 %
Water - minimum efficiency of: 0.5 %

Conditions and measures for the municipal sewage treatment plant

Type of sewage treatment plant (STP): Municipal STP
STP effluent (m^3/day): 8640

Conditions and measures for waste treatment (including the product waste)

Waste treatment: Do not spread industrial sludge on natural soils.

Other operational conditions affecting environmental exposure

Local seawater dilution factor: 100
Local fresh water dilution factor: 11
Flow rate of receiving surface water: 86400
Indoor use

2.2. CS2 Worker Contributing Scenario: Use in Closed Systems (PROC3)

Process categories: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC3)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 480 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 95 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure.

2.3. CS3 Worker Contributing Scenario: Material Transfers (PROC8a)

Process categories: Transfer of a substance or a preparation (filling/emptying) at non-dedicated facilities (PROC8a)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 240 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure.

2.4. CS4 orker Contributing Scenario: Material Transfers (PROC8b)

Process categories: Transfer of a substance or a preparation (filling/emptying) at dedicated facilities (PROC8b)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 240 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand. Possible skin contact is believed to be limited to the hands.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure. Wear suitable face protection.

2.5. CS5 Worker Contributing Scenario: Material Transfers (PROC9)

Process categories: Transfer of a substance or preparation (filling/emptying) (dedicated filling line, including weighing) (PROC9)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 240 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand. Possible skin contact is believed to be limited to the hands.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure. Wear suitable face protection.

2.6. CS6 Worker Contributing Scenario: Mixing Operations (PROC5)

Process categories: Mixing or Blending in Batch Processes (PROC5)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 60 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand. Possible skin contact is believed to be limited to the hands.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure. Wear suitable face protection.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. CS1 Environment Contributing Scenario: Wet Formulation (ERC2)

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
sea water	1,025 kg/day	ECETOC TRA environment v2.0	0.81

3.2. CS2 Worker Contributing Scenario: Use in Closed Systems (PROC3)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	8,515 mg/m³	ECETOC TRA worker v2.0	0.424

3.3. CS3 Worker Contributing Scenario: Material Transfers (PROC8a)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353
by inhalation, systemic, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353

3.4. CS4 orker Contributing Scenario: Material Transfers (PROC8b)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706
by inhalation, systemic, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706

3.5. CS5 Worker Contributing Scenario: Material Transfers (PROC9)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706
by inhalation, systemic, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706

3.6. CS6 Worker Contributing Scenario: Mixing Operations (PROC5)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Guidance to check compliance with the exposure scenario: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Benzyl alcohol

Substance identification
Chemical Name: Benzyl alcohol
CAS number: 100-51-6
Date: 07/12/2012

INDUSTRIAL USE

Exposure scenario for industrial use in adhesives, sealants, coatings and paints, fillers, finger paints, metallic and non-metallic surface treatment products, inks and toners (PC1, PC9a, PC9b, PC9c, PC14, PC15 , PC18)

1. TITLE

Systematic title based on the use descriptor: SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Processes, activities covered:

Mixing or dilution in batch processes
Processing by compression/pelletisation, calendering or use during foam production
Transfer operations from/to large or small containers
Treatment of objects by brush/roller application, spraying or immersion/pouring
Lubrication at high energy conditions
Use as a laboratory agent
Handling of substances bound in materials/articles

Evaluation method:

ECETOC TRA (April 2010), EUSES (v.2.1)

2. OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

Process categories for human health and environmental release categories for exposure assessment:
PC1: PROC5, 7, 8a, 8b, 9, 10, 12, 13, 14 spERC ESVOC 5 (related to ERC4)
PC9a/b/c: PROC5, 7, 8a, 8b, 9, 10, 13 spERC ESVOC 5 (related to ERC4)
PC14: PROC5, 8a, 8b, 9, 15, 23, 24, 25 spERC ESVOC 5 (related to ERC4)
PC15: PROC5, 8a, 8b, 9, 15 spERC ESVOC 5 (related to ERC4)
PC18: PROC7, 8a, 8b, 9, 10, 13 spERC ESVOC 5 (related to ERC4)

2.1 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC12, PROC13, PROC14, PROC15

Product features

Concentration ≤ 40%
Physical state: liquid

Quantity used

Not applicable

Frequency and duration of use/exposure

Duration of exposure per day: 8h (full shift, indoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management

Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure

Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
Local vapor ventilation (efficiency > 90 %) or other adequate ventilation required

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
PROC7:
Respiratory protection recommended (95% efficiency) as described in section 8.
Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.2 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC23, PROC24, PROC25

Product features
Concentration ≤ 40%
Physical state: liquid

Quantity used
Not applicable

Frequency and duration of use/exposure
Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management
Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure
Indoor use.
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
Local vapor ventilation (efficiency > 90 %) or other adequate ventilation required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.3 EXPOSURE SCENARIO CONTROLLING ENVIRONMENTAL EXPOSURE FOR SPERC ESVOC 5 - RELATED TO ERC4

Product features
Not relevant

Quantity used
Number of sites: > 1
Yearly amount used in the region: PC 1, 9a, 9b, 9c, 14, 15, 18: 412 to: 570 to (10 % rule applies)

Frequency and duration of use
spERC ESVOC 5 (related to ERC4): 300 days/year

Environmental factors not influenced by risk management
Local fresh water dilution factor: 10
Receiving surface water flow: 18,000 m³/d
Local seawater dilution factor 100

Other operational conditions affecting environmental exposure
Indoor and outdoor use

Technical conditions and measures at process level (source) to prevent release
spERC ESVOC 5 (related to ERC4):
Fraction of tonnage released to air: 9,8 %
Fraction of tonnage released to wastewater: 2 %
Fraction of tonnage released into industrial ground: 0 %

Local technical conditions and measures to reduce and limit discharges, atmospheric emissions and soil release
Waste water must be sent to a dedicated treatment plant or treated with other suitable techniques. Floors should be waterproof and resistant to liquids.

Organizational measures to prevent/limit release from site
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures for the domestic sewage treatment plant
Dimensions of wastewater treatment plant: 2000 m^3/d (removal rate: 87.4 %)

Conditions and measures for external treatment of waste for disposal
No specific measures. For general conditions and measures, see section 13.

Conditions and measures for external recovery of waste
No specific measures. For general conditions and measures, see section 13.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Workers

Exposure assessment (human):
ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been corrected for concentration.

Exposure estimation:
Individual and combined (skin and inhalation) exposure values are below the DNELs (RCR ratios < 1).

Environment

Exposure assessment (environment):
EUSES 2.1: ERC4 modified with ESVOC 5 (ESVOC SPERC 4.3a.v1)

Exposure estimation:
The predicted exposure concentrations for air, water and soil are lower than the derived PNECs, giving an RCR < 1.

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Environment:
Under the conditions listed above the process is considered safe. Direct release to water and soil should be avoided, air emissions should be minimised. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Health:
Under the conditions listed above the process is considered safe. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Further good practice advice beyond the REACH CSA
Environment: Not applicable
Health: On possible contact with the product (sampling, use, spills, product leaks, cleaning): wear protective clothing. Wear protective gloves and safety goggles. See section 8 for information on appropriate personal protective equipment.

PROFESSIONAL USE

Exposure scenario for professional uses of benzyl alcohol consisting of mixing/ loading and charging/discharging, roller, brush, spray or dip application (PC0, PC1, PC09a, 9b, 9c, PC14, PC15, PC18, PC21, PC26, PC31, PC32).

1. TITLE

Systematic title based on the use descriptor: SU22 - Professional uses: Generalized use

Processes, activities covered:

Mixing or dilution in batch processes BY HAND
Transfer operations from/to large or small containers
Treatment of objects by brush/roller application, spraying or immersion/pouring
Hand mixing with intimate contact and only PSD available
Handling of substances bound in materials/articles

Evaluation method:

ECETOC TRA (April 2010), EUSES (v.2.1)

2. OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

Process categories for human health and environmental release categories for exposure assessment:
PC0: PROC5, 8a, 8b, 9, 10, 11, 13, 19 - ERC8a, 8d
PC1: PROC5, 8a, 8b, 9, 10, 11, 13, 19 - ERC8a, 8d
PC9a, 9b, 9c: PROC5, 8a, 8b, 9, 10, 11, 13, 19 - ERC8a, 8d
PC14: PROC8a, 8b, 9, 10, 11, 13, 19, 23, 24, 25 - ERC8a, 8d
PC15: PROC8a, 8b, 9, 10, 11, 13, 19 - ERC8a, 8d
PC18: PROC5, 8a, 8b, 10, 11, 13, 19 - ERC8a, 8d
PC21: PROC8a, 8b, 15 - ERC8a, 8d
PC26: PROC5, 6, 8a, 8b, 11, 13, 14, 19, 21 - ERC8a, 8d
PC30: PROC8a, 8b - ERC8a, 8d
PC31: PROC8b, 10, 11 - ERC8a, 8d
PC32: PROC8a, 8b, 9, 10, 11 - ERC8a, 8d

Number of sites: > 1

2.1 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC12, PROC13, PROC14, PROC15

Product features

Concentration ≤ 40%
Physical state: liquid

Quantity used

Not applicable

Frequency and duration of use/exposure

Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management

Breathing volume in the conditions of use: 10 m^3/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure

Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker

No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
Personal protection:
PROC8b, PROC9, PROC14, PROC15: concentration ≤ 40 %: no RMM required.
PROC5, PROC8a, PROC13: > 25 % - ≤ 40 %: gloves (90 % efficiency) are required as described in section 8.
PROC6: > 5 % - ≤ 40 %: gloves (90 % efficiency) are required as described in section 8.
PROC10: < 5 % (indoor and outdoor environment): No RMMs required.
> 5 - ≤ 40 % (indoor and outdoor environment): gloves (90 % efficiency) are required as described in point 8.

Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.2 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC11

Product features
Concentration ≤ 40%
Physical state: liquid

Quantity used
Not applicable

Frequency and duration of use/exposure
Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management
Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure
Indoor and outdoor use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
Personal protection:
≤ 5 % (indoor and outdoor environment): Respiratory protection (95 % efficiency) required as described in section 8.
> 5 % ≤ 40 % (indoor and outdoor environment): Respiratory protection (95 % efficiency) and gloves (90 % efficiency) required as described in section 8.
Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.3 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC19

Product features
Concentration ≤ 40%
Physical state: liquid

Quantity used
Not applicable

Frequency and duration of use/exposure
Duration of exposure per day (concentration ≤ 25 %): 8 hours (indoors and outdoors)
Duration of exposure per day (concentration >25% ≤40%): 4 hours (indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management
Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure
Indoor and outdoor use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
Personal protection:
> 1 % (indoor): gloves (90 % efficiency) are required as described in section 8.
> 5% - 40% (outdoors): gloves (90 % efficiency) are required as described in section 8.
Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.4 EXPOSURE SCENARIO CONTROLLING ENVIRONMENTAL EXPOSURE FOR ERC8a, ERC8d

Product features
Not relevant

Quantity used
Yearly amount used in the region: the 10% rule applies
ERC8a PC0, 1, 9a, 9b, 9c, 14, 15, 18, 21, 26, 30, 31, 32, 34, 35: 1,785t
ERC8d PC0, 1, 9a, 9b, 9c, 14, 15, 18, 21, 26, 31, 32, 34, 35: 1,775t
Fraction of main local source: 0.002 (default)
Issue days per site: 365 days/year (default)

Frequency and duration of use
Continuous release: 365 days/year

Environmental factors not influenced by risk management
Local fresh water dilution factor: 10
Receiving surface water flow: 18,000 m³/d
Local seawater dilution factor local: 100

Other operational conditions affecting environmental exposure
Indoor / outdoor environment

Technical conditions and measures at process level (source) to prevent release
No special measures are required.

Local technical conditions and measures to reduce and limit discharges, atmospheric emissions and soil release
Waste water must be sent to a dedicated treatment plant or treated with other suitable techniques.

Organizational measures to prevent release from site
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures for the domestic sewage treatment plant
Dimensions of wastewater treatment plant: 2000 m³/d (removal rate: 87.4 %)

Conditions and measures for external treatment of waste for disposal
No specific measures. For general conditions and measures, see section 13.

Conditions and measures for external recovery of waste
No specific measures. For general conditions and measures, see section 13.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Workers

PROC5, PROC6, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC14, PROC15, PROC19

Exposure assessment (human):

PROC5, PROC6, PROC8b, PROC9, PROC11, PROC13, PROC14, PROC15

ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been linearly corrected for concentration.

PROC8a, PROC10

ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been linearly corrected for concentration. Local and systemic exposure via inhalation of ECETOC TRA has been linearly scaled based on the concentration.

PROC19

ECETOC TRA model (April 2010 version). The dermal exposure estimates of ECETOC TRA have been linearly corrected for the concentration and according to the EMFs of CEFIC for the duration of exposure. Local exposure via inhalation of ECETOC TRA has been linearly scaled based on the concentration and in accordance with the CEFIC EMFs for the duration of exposure. Systemic exposure via inhalation has been linearly scaled for the duration of exposure.

Exposure estimation:

Individual and combined (skin and inhalation) exposure values are below the DNELs (RCR ratios < 1).

Environment

ERC8a, ERC8d

Exposure assessment (environment):

EUSES 2.1.

Exposure estimation:

The predicted exposure concentrations for air, water and soil are lower than the derived PNECs, giving an RCR < 1.

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Environment:

Under the conditions listed above the process is considered safe. Direct release to water and soil should be avoided, air emissions should be minimised. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Health:

Under the conditions listed above the process is considered safe. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Further good practice advice beyond the REACH CSA

Environment: Not applicable

Health: On possible contact with the product (sampling, use, spills, product leaks, cleaning): wear protective clothing. Wear protective gloves and safety goggles. See section 8 for information on appropriate personal protective equipment.

PROFESSIONAL USE

Exposure scenario for professional use in photochemicals (PC30)

1. TITLE

Systematic title based on the use descriptor: SU22 - Professional uses: Generalized use

Processes, activities covered:

Transfer operations from/to large or small containers

Evaluation method:

ECETOC TRA (April 2010), EUSES (v.2.1)

2. OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

Human Health Exposure/Environmental Exposure:
PC30: PROC8a, 8b - ERC8a, 8d

Number of sites: > 1

2.1 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC8a E PROC8b

Product features

Concentration ≤ 40%
Physical state: liquid

Quantity used

Not applicable

Frequency and duration of use/exposure

Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management

Breathing volume in the conditions of use: 10 m^3/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure

Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker

No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure

Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection:
PROC8b: concentration ≤ 40 %: no RMM required.
PROC8a: > 25 % - ≤ 40 %: gloves (90 % efficiency) are required as described in section 8.

Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.2 EXPOSURE SCENARIO CONTROLLING ENVIRONMENTAL EXPOSURE FOR ERC8a, ERC8b

Product features
Not relevant

Quantity used
Yearly amount used in the region: the 10% rule applies
ERC8a PC30: 1.785 t
ERC8d PC30: 190 t
Fraction of main local source: 0.002 (default)
Issue days per site: 365 days/year (default)

Frequency and duration of use
Continuous release: 365 days/year

Environmental factors not influenced by risk management
Local fresh water dilution factor: 10
Receiving surface water flow: 18,000 m³/d
Local seawater dilution factor local: 100

Other operational conditions affecting environmental exposure
No special measures are required.

Technical conditions and measures at process level (source) to prevent release
No special measures are required.

Local technical conditions and measures to reduce and limit discharges, atmospheric emissions and soil release
Waste water must be sent to a dedicated treatment plant or treated with other suitable techniques.

Organizational measures to prevent release from site
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures for the domestic sewage treatment plant
Dimensions of wastewater treatment plant: 2000 m³/d (removal rate: 87.4 %)

Conditions and measures for external treatment of waste for disposal
No specific measures. For general conditions and measures, see section 13.

Conditions and measures for external recovery of waste
No specific measures. For general conditions and measures, see section 13.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Workers
PROC8a, PROC8b

Exposure assessment (human):
PROC8a
ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been linearly corrected for concentration. Local and systemic exposure via inhalation of ECETOC TRA has been linearly scaled based on the concentration.

PROC8b
ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been linearly corrected for concentration.

Exposure estimation:
Individual and combined (skin and inhalation) exposure values are below the DNELs (RCR ratios < 1).

Environment
ERC8a, ERC8b

Exposure assessment (environment):
EUSES 2.1.

Exposure estimation:
The predicted exposure concentrations for air, water and soil are lower than the derived PNECs, giving an RCR < 1.

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Environment:
Under the conditions listed above the process is considered safe. Direct release to water and soil should be avoided, air emissions should be minimised. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Health:
Under the conditions listed above the process is considered safe. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Further good practice advice beyond the REACH CSA
Environment: Not applicable
Health: On possible contact with the product (sampling, use, spills, product leaks, cleaning): wear protective clothing. Wear protective gloves and safety goggles. See section 8 for information on appropriate personal protective equipment.

PROFESSIONAL USE

Exposure scenario for professional use in washing and cleaning products, cosmetics and personal care products (PC35, PC39)

1. TITLE

Systematic title based on the use descriptor: SU22 - Professional uses: Generalized use

Processes, activities covered:

Transfer operations from/to large or small containers
Treatment of objects by roller/brush, spray or dip/pour application
Mixing or dilution in batch processes or by hand

Evaluation method:

ECETOC TRA (April 2010), EUSES (v.2.1)

2. OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

Human Health Exposure/Environmental Exposure:
PC35: PROC8a, 8b, 9, 10, 11, 13, 19 - ERC8a, 8b, 8d, 8e
PC39: PROC13 - ERC8a, 8b, 8d, 8e

Number of sites: > 1

2.1 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC8a, PROC8b, PROC9, PROC10, PROC13

Product features

Concentration ≤ 40%
Physical state: liquid

Quantity used

Not applicable

Frequency and duration of use/exposure

Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management

Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure

Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker

No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure

Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection:
PROC8b, PROC9: concentration ≤ 40 %: no RMM required.
PROC8a, PROC13: > 25 % - ≤ 40 %: gloves (90 % efficiency) are required as described in section 8.
PROC10: < 5 % (indoor and outdoor environment): No RMMs required
> 5 - ≤ 40 % (indoor and outdoor environment): gloves (90 % efficiency) are required as described in section 8.

Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.2 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC11

Product features
Concentration ≤ 40%
Physical state: liquid

Quantity used
Not applicable

Frequency and duration of use/exposure
Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management
Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure
Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
Personal protection:
≤ 5 % (indoor and outdoor environment): Respiratory protection (95 % efficiency) required as described in section 8.
> 5 % - ≤ 40 % (indoor and outdoor environment): Respiratory protection (95 % efficiency) and gloves (90 % efficiency) required as described in section 8.

Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.3 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC19

Product features
Concentration ≤ 40%
Physical state: liquid

Quantity used
Not applicable

Frequency and duration of use/exposure
Duration of exposure per day (concentration ≤ 25 %): 8 h (indoor and outdoor)
Duration of exposure per day (concentration >25% - ≤40%): 4 hours (indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management
Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure
Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection:
> 1 % (indoor): gloves (90 % efficiency) are required as described in section 8.
> 5% - 40% (outdoors): gloves (90 % efficiency) are required as described in section 8..

Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.4 EXPOSURE SCENARIO CONTROLLING ENVIRONMENTAL EXPOSURE FOR ERC8a, ERC8b, ERC8d, ERC8e

Product features

Not relevant

Quantity used

Yearly amount used in the region: the 10% rule applies
ERC8a PC35/PC39: 1,785 t
ERC8b PC35/PC39: 190 t
ERC8d PC35/PC39: 1,775 t
ERC8e PC35/PC39: 190 t
Fraction of main local source: 0.002 (default)
Issue days per site: 365 days/year (default)

Frequency and duration of use

Continuous release: 365 days/year

Environmental factors not influenced by risk management

Local fresh water dilution factor: 10
Receiving surface water flow: 18,000 m³/d
Local seawater dilution factor local: 100

Other operational conditions affecting environmental exposure

No special measures are required.

Technical conditions and measures at process level (source) to prevent release

No special measures are required.

Local technical conditions and measures to reduce and limit discharges, atmospheric emissions and soil release

Waste water must be sent to a dedicated treatment plant or treated with other suitable techniques.

Organizational measures to prevent release from site

Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures for the domestic sewage treatment plant

Dimensions of wastewater treatment plant: 2000 m³/d (removal rate: 87.4 %)

Conditions and measures for external treatment of waste for disposal

No specific measures. For general conditions and measures, see section 13.

Conditions and measures for external recovery of waste

No specific measures. For general conditions and measures, see section 13.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Workers

Exposure assessment (human):

PROC8b, PROC9, PROC11, PROC13

ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been corrected for concentration.

PROC8a, PROC10

ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been linearly corrected for concentration. Local and systemic exposure via inhalation of ECETOC TRA has been linearly scaled based on the concentration.

PROC19

ECETOC TRA model (April 2010 version). The dermal exposure estimates of ECETOC TRA have been linearly corrected for the concentration and according to the EMFs of CEFIC for the duration of exposure. Local exposure via inhalation of ECETOC TRA has been linearly scaled based on the concentration and in accordance with the CEFIC EMFs for the duration of exposure. Systemic exposure via inhalation has been linearly scaled for the duration of exposure.

Exposure estimation:

Individual and combined (skin and inhalation) exposure values are below the DNELs (RCR ratios < 1).

Environment

ERC8a, ERC8b, ERC8d, ERC8e

Exposure assessment (environment):

EUSES 2.1.

Exposure estimation:

The predicted exposure concentrations for air, water and soil are lower than the derived PNECs, giving an RCR < 1.

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Environment:

Under the conditions listed above the process is considered safe. Direct release to water and soil should be avoided, air emissions should be minimised. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Health:

Under the conditions listed above the process is considered safe. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Further good practice advice beyond the REACH CSA

Environment: Not applicable

Health: On possible contact with the product (sampling, use, spills, product leaks, cleaning): wear protective clothing. Wear protective gloves and safety goggles. See section 8 for information on appropriate personal protective equipment.

m-phenylenebis(methylamine)

Substance identification
Chemical Name: m-phenylenebis(methylamine)
CAS number: CAS-1477-55-0
Date - Version: 10/03/2020 - 1.0

PROFESSIONAL USES - GENERALIZED USE BY PROFESSIONAL OPERATORS: VARIOUS PRODUCTS (PC9a, PC9b, PC1); CONSTRUCTION (SU19)

1. TITLE SECTION

Exposure scenario name: Professional use of coatings and paints - Use in composite and foundry materials
Life cycle stage: Professional uses
Sectors of use: Construction (SU19) - Professional uses (SU22)
Product categories: Coatings and paints, thinners, pickling solutions (PC9a) - Additives, fillers, plasters, modeling clay (PC9b) - Adhesives, Sealants (PC1)

CONTRIBUTION SCENARIO - ENVIRONMENT

CS1: Wet cure - Wet formulation ERC8c - ERC8f

CONTRIBUTION SCENARIO - WORKER

CS2: Application with rollers or brushes PROC10
CS3: Non-industrial spray application PROC11
CS4: Treatment of articles by dipping and pouring PROC13
CS5: Manual activities with direct contact PROC19
CS6: Low energy handling of substances included in or on materials and/or articles PROC21

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. CS1: CONTRIBUTION SCENARIO - ENVIRONMENT: Wet cure - Wet formulation (ERC8c, ERC8f)

Environmental release categories

Widespread use resulting in inclusion in or on the surface of an article (indoor use) - Wide use leading to inclusion in/on article (outdoor use) (ERC8c, ERC8f)

Product features (article)

Physical form of the product: Liquid

Amount used, frequency and duration of use/(or duration of use)

Amounts used:
PROC10 ≤ 0,4 l/min
PROC11 ≤ 0,3 l/min
PROC13 ≤ 2 l/min
PROC19 ≤ 1 l/min
PROC21 ≤ 0,3 l/min

Measures and technical-organizational conditions

Control measures to prevent releases: No entry of substance into waste water.

Conditions and measures for waste treatment (including the product waste)

Waste treatment: This material and its container must be disposed of as hazardous.
Dispose of waste product or used containers according to local regulations.
Incineration of hazardous waste.

2.2. CS2: CONTRIBUTION SCENARIO - WORKER: Application with rollers or brushes (PROC10)

Product features (article)
Physical form of the product: Liquid.
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/(or duration of use)
Amounts used: Quantity per use 0.4 l/min
Duration: ≤ 5 h/day
Frequency: 365 days/year

Technical organizational measures
Ensure that direct skin contact is avoided.
Avoid direct contact with the product, even with contaminated hands.
Ensure operating personnel are trained to minimize exposure.
See main part of the safety data sheet, Sections 7 and/or 8, for measures mitigating the risks deriving from the physical-chemical properties.
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment:
Wear suitable face protection.
Use adequate eye protection.
Wear a suitable apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Use a respiratory protective device according to EN140.
Dermal: minimum efficiency of 80%.
Inhalation: minimum efficiency of 95%.

2.3. CS3: CONTRIBUTION SCENARIO - WORKER: Non-industrial spray application (PROC11)

Product features (article)
Physical form of the product: Liquid.
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/(or duration of use)
Amounts used: Quantity per use 0.3 l/min
Duration: ≤ 6 h/day
Frequency: 365 days/year

Technical organizational measures
Ensure that direct skin contact is avoided.
Avoid direct contact with the product, even with contaminated hands.
Ensure operating personnel are trained to minimize exposure.
See main part of the safety data sheet, Sections 7 and/or 8, for measures mitigating the risks deriving from the physical-chemical properties.
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment:
Wear suitable face protection.
Use adequate eye protection.
Wear a suitable apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Use a respiratory protective device according to EN140.
Dermal: minimum efficiency of 80%.
Inhalation: minimum efficiency of 95%.

2.4. CS4: CONTRIBUTION SCENARIO - WORKER: Treatment of articles by dipping and pouring (PROC13)

Product features (article)
Physical form of the product: Liquid.
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/(or duration of use)
Amounts used: Quantity per use 2 l/min
Duration: ≤ 1 h/day
Frequency: 365 days/year

Technical organizational measures
Ensure that direct skin contact is avoided.
Avoid direct contact with the product, even with contaminated hands.
Ensure operating personnel are trained to minimize exposure.
See main part of the safety data sheet, Sections 7 and/or 8, for measures mitigating the risks deriving from the physical-chemical properties.
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment:
Wear suitable face protection.
Use adequate eye protection.
Wear a suitable apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Use a respiratory protective device according to EN140.
Dermal: minimum efficiency of 80%.
Inhalation: minimum efficiency of 95%.

2.5. CS5: CONTRIBUTION SCENARIO - WORKER: Manual activities with direct contact (PROC19)

Product features (article)
Physical form of the product: Liquid.
Concentration of the substance in the product: Includes substance shares in the product up to 40%.

Amount used, frequency and duration of use/(or duration of use)
Amounts used: Quantity per use 1 l/min
Duration: ≤ 2 h/day
Frequency: 365 days/year

Technical organizational measures
Ensure that direct skin contact is avoided.
Avoid direct contact with the product, even with contaminated hands.
Ensure operating personnel are trained to minimize exposure.
See main part of the safety data sheet, Sections 7 and/or 8, for measures mitigating the risks deriving from the physical-chemical properties.
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment:
Wear suitable face protection.
Use adequate eye protection.
Wear a suitable apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Use a respiratory protective device according to EN140.
Dermal: minimum efficiency of 80%.
Inhalation: minimum efficiency of 95%.

2.6. CS6: CONTRIBUTION SCENARIO - WORKER: Low energy handling of substances included in or on materials and/or articles (PROC21)

Product features (article)

Physical form of the product: Liquid.
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/(or duration of use)

Amounts used: Quantity per use 0.3 l/min
Duration: ≤ 6 h/day
Frequency: 365 days/year

Technical organizational measures

Ensure that direct skin contact is avoided.
Avoid direct contact with the product, even with contaminated hands.
Ensure operating personnel are trained to minimize exposure.
See main part of the safety data sheet, Sections 7 and/or 8, for measures mitigating the risks deriving from the physical-chemical properties.
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment:
Wear suitable face protection.
Use adequate eye protection.
Wear a suitable apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Use a respiratory protective device according to EN140.
Dermal: minimum efficiency of 80%.
Inhalation: minimum efficiency of 95%.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. CS1: CONTRIBUTION SCENARIO - ENVIRONMENT: Wet cure - Wet formulation (ERC8c, ERC8f)

Protection goal	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
fresh water	N.d.	ECETOC TRA environment v2.0	0.169
fresh water sediment	N.d.	ECETOC TRA environment v2.0	0.411
sea water	N.d.	ECETOC TRA environment v2.0	0.089
Marine sediment	N.d.	ECETOC TRA environment v2.0	0.412
Agricultural land	N.d.	ECETOC TRA environment v2.0	0.004

3.2. CS2: CONTRIBUTION SCENARIO - ENVIRONMENT: Application with rollers or brushes (PROC10)

Route of exposure, Impact on health, Exposure indicator	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
skin contact, systemic, long-term	N.d.	RISKOFDERM v2.1	0.83
by inhalation, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.2

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3.3. CS3 CONTRIBUTION SCENARIO - ENVIRONMENT: Non-industrial spray application (PROC11)

Route of exposure, Impact on health, Exposure indicator	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
skin contact, systemic, long-term	N.d.	RISKOFDERM v2.1	0.83
by inhalation, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.2

3.4. CS4 CONTRIBUTION SCENARIO - ENVIRONMENT: Treatment of articles by dipping and pouring (PROC13)

Route of exposure, Impact on health, Exposure indicator	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
skin contact, systemic, long-term	N.d.	RISKOFDERM v2.1	0.83
by inhalation, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.2

3.5. CS5 CONTRIBUTION SCENARIO - ENVIRONMENT: Manual activities with direct contact (PROC19)

Route of exposure, Impact on health, Exposure indicator	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
skin contact, systemic, long-term	N.d.	RISKOFDERM v2.1	0.83
by inhalation, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.2

3.6. CS6 CONTRIBUTION SCENARIO - ENVIRONMENT: Low energy handling of substances included in or on materials and/or articles (PROC21)

Route of exposure, Impact on health, Exposure indicator	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
skin contact, systemic, long-term	N.d.	RISKOFDERM v2.1	0.83
by inhalation, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.2

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Predicted exposures are not expected to exceed the applicable exposure limits (given in section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.